TELSTA™

A-28D

NON-INSULATED AERIAL LIFT

SERVICE AND REPAIR/PARTS

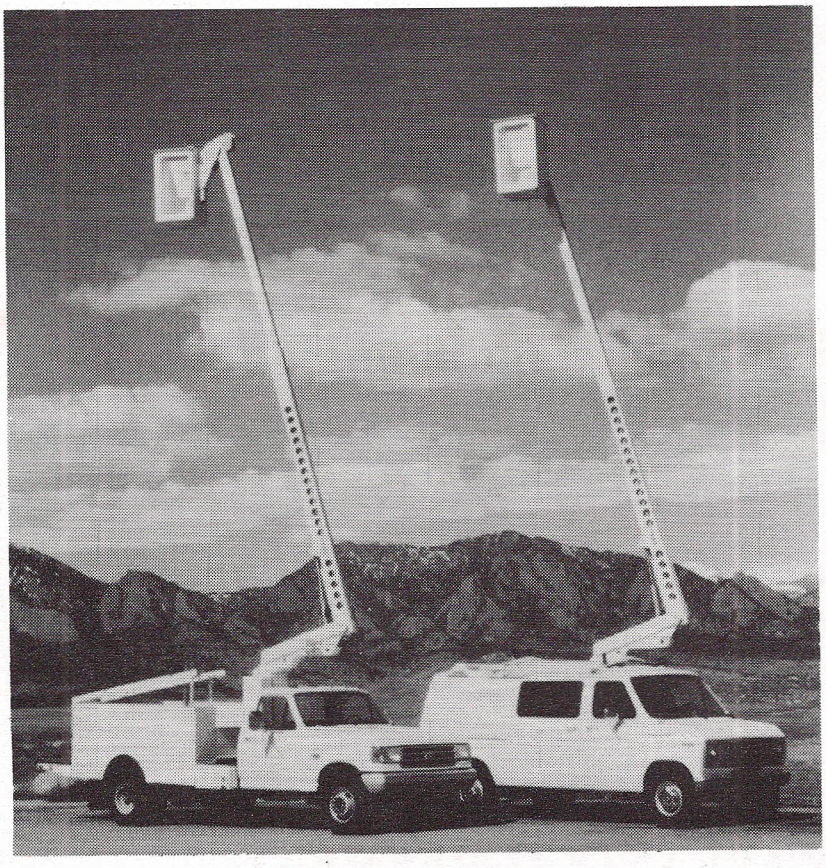
IMPORTANT OPERATOR INFORMATION

LEAVE IN VEHICLE

PART NO. T-76264

TELSTA®
A PRODUCT OF
MOBILE TOOL
INTERNATIONAL, INC.
AN EMPLOYEE OWNED COMPANY

TELSTA™



A-28D

NON-INSULATED AERIAL LIFT SERVICE AND REPAIR/PARTS

IMPORTANT OPERATIONAL AND MAINTENANCE INFORMATION. DO NOT REMOVE FROM THE VEHICLE.

MODEL	
DATE	
SERIAL NUMBER	

TELSTA®
A PRODUCT OF MOBILE TOOL INTERNATIONAL, INC.
AN EMPLOYEE OWNED COMPANY

5600 West 88th Ave., Westminster, CO. 80030	(303) 427-3700
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PART NO. T-76264

September 1998 · Litho IN USA

PREFACE

This manual is produced for the benefit of our customers. It is intended to provide basic information that will enable the owner/operator to operate, maintain, and service TELSTA A-28/29D Non-insulated type aerial lift economically, capably, and with minimum delay. The instructions and maintenance information must be used to ensure safe operation, and maximum life and efficiency of the unit.

In order to familiarize the technician with the unit, this manual and the Operators manual (TELSTA Part # T-76263) must be read thoroughly before operating or servicing a TELSTA A-28/29D. A copy of this manual must be kept with the aerial lift unit at all times.

STATEMENT OF INTENDED USE

THIS AERIAL DEVICE IS INTENDED FOR USE WITH ONE PERSON ALOFT IN THE WORK BASKET WHILE THE VEHICLE IS STATIONARY. THE TRUCK MUST NOT BE MOVED WHILE THE OPERATOR IS ALOFT. THE TOTAL WEIGHT OF THE OPERATOR PLUS TOOLS MUST NOT EXCEED 350 POUNDS (159 kg) ON SIDE MOUNTED BASKETS*, 300 POUNDS (136 kg) ON END MOUNTED BASKETS. THE TELSTA A-28D IS OF THE NON-INSULATED TYPE AND IS NOT INTENDED FOR USE ON ENERGIZED LINES OR APPARATUS.

*Basket load rating is dependent on the chassis selected. The operator must obey the red "basket load capacity" decal affixed to the basket or the lift data plate attached to the mast.

LIMITED WARRANTY AGREEMENT

Telsta Aerial Lifts are warranted against defective workmanship and material for a period of one year from date of shipment. This warranty does not extend to parts and components which are subject to normal replacement during one year's operating time.

No claims shall be allowed for labor in replacing such components or parts or for any direct or consequential damages whatsoever. Replacement parts will be invoiced in the regular way with invoices subject to adjustment after the parts claimed defective are examined at our factory. In addition, no material or parts will be accepted at our factory for in-warranty repairs or credit without previous authorization from Mobile Tool International, Inc.

Responsibility for damages incurred in transit will be born by the user and the user in turn should file any damage claim against the carrier. All warranty items are F.O.B. our plant. Freight charges are the responsibility of the user.

This warranty shall not apply to any aerial lift which shall have been repaired or altered in any way by anyone other than Mobile Tool International, Inc., so as to effect, in our sole judgment, its proper functioning or reliability. Neither will it apply to an aerial lift which has been subjected to misuse, negligence, or accident.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS, IMPLIED, OR STATUTORY INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY SPECIFIC PURPOSE

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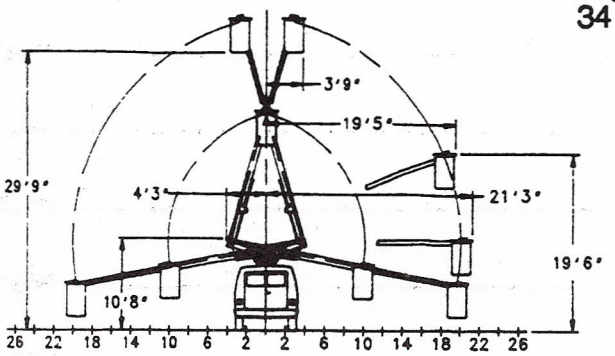
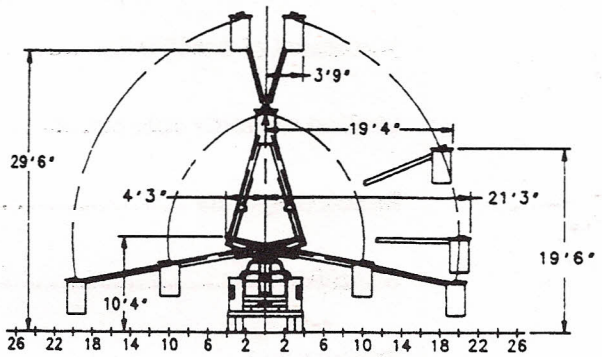
REACH DIAGRAMS*

***Dimensions will vary slightly according to chassis and tire specifications. 36" frame height assumed.**

Working Height:
34 feet



A-28D Van Mounted



A-28D Utility Body Mounted

SPECIFICATIONS

Model	A-28D Utility	A-28D Van
Height		
Bottom of Basket	29'6"	29'9"
Working Height	34'6"	34'9"
Reach from Centerline of Rotation to Basket Lip		
Side Mount Basket	21'3"	21'3"
End Mount Basket	23'3"	Not Available
Standard Baskets	Tubular Steel (24" x 24") with Pass Through Opening	
Optional Baskets	Fiberglas (24" x 24") with Pass Through Opening Tubular Steel (24" x 24") with Access Door Rotating Splicer's Basket	
Basket Capacity	350 lb. (159 kg) Side Mounted Baskets, 300 lb. (136 kg) End Mounted Baskets maximum load.	
Basket Leveling		
Standard	Gravity Leveling with Operator Actuated Locking Shock Absorber	
Optional	Hydraulic Postive Leveling with Power Basket Stow/Lower	
Rotation	Shear Ball Bearing Turntable, 360 degrees; non-continuous with Electric Limit Switch.	
Boom Travel	-11 +74	
Controls	Weather Sealed Toggle switches, spring loaded to an off/neutral position. Emergency Lower, Engine Stop/Start and 110 VAC Outlet are Standard. Ground Control Panel able to be installed in various locations is also Standard.	
Air Line in Boom	Standard 1/4" Air Line with Quick Disconnect Located at Basket	
Hydraulic System	Operating Pressure: 1200 psi (82 BAR) Maximum System Pressure: 2400 psi (165 BAR) Gallons Per Minute: 1.6 (6.06 LPm)	
Power Sources	Truck engine driven pumps: Power Take-Offs, DC Power Packs are all available with DC/AC Inverters. A variety of independent engine generators are available.	
Minimum Chassis Requirements	UTILITY: GVWR - 10,500 lb. (4763 kg). CA - 60" (1524 mm), 84" CA (2134mm) required for End-Mounted Platforms. VAN*: GVWR - 8,600 lb. (3900 kg) WB - 125" (3175 mm).	

The Telsta A-28D complies with OSHA, ANSI, DOT, and Canadian regulations in effect on the date of final assembly, as interpreted by Mobile Tool International, Inc.

The Telsta A-28D is a NON-INSULATED Aerial Lift and is NOT intended for use on energized lines or apparatus.

The Telsta A-28D is not intended for lifting personnel and tools in excess of 350 lb. (159 kg) on Side Mounted Baskets*, 300 lb. (136 kg) End Mount Baskets. The Telsta A-28D is not intended for material handling or loads exceeding 350 lb. (159 kg) Side Mounted Basket, 300 lb. (136 kg) End Mount Basket.

***Chevrolet/GMC 8600 GVWR van may require counterwight and/or torsion bar for stability, or a reduction in rated basket capacity to 300 LBS.** Always refer to the red "basket rated capacity" decal in the basket.

TELSTA A-28D AERIAL LIFT

INTRODUCTION

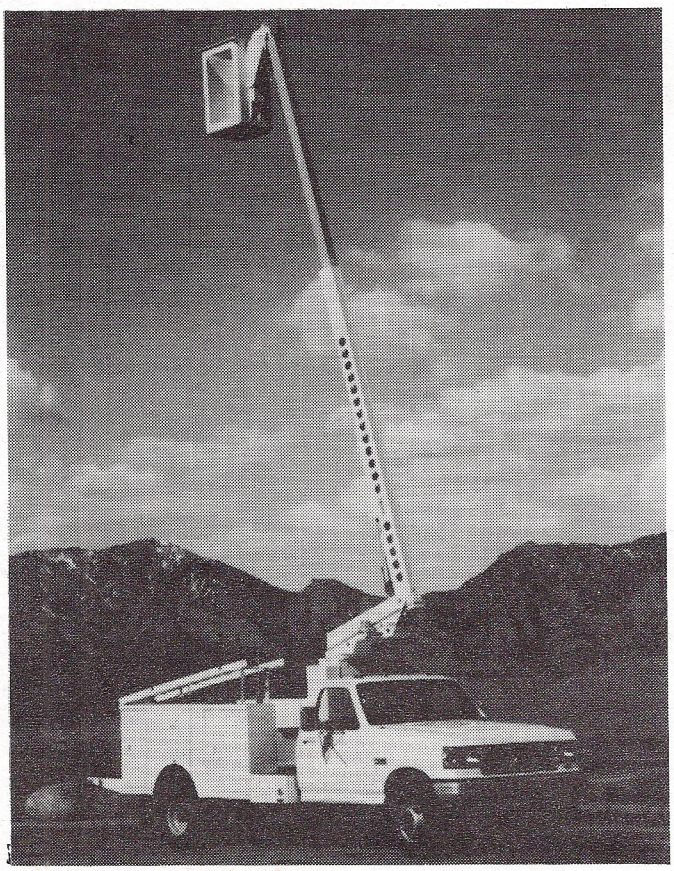
This Service and Repair/Parts manual covers the maintenance, troubleshooting, disassembly, inspection, repair, and reassembly of the model A-28/29D.

Before operating this lift for the first time, the OPERATOR'S MANUAL (Part # T-76263) must be read and understood by the Operator. Repair Personnel must also review the OPERATOR'S MANUAL as well before performing repairs or maintenance on the A-28/29D. This will give a broader understanding of the model A-28/29D and its operating systems.

The A-28/29D is a lightweight aerial lift designed for splicing and light duty cable maintenance. Proven TELSTA design concepts have been used on this unit, with attention on ease of maintenance and repair.

The A-28/29D is an electric over hydraulic unit. The controls at the basket and ground control panel provide 12 volts of DC current from the vehicle battery to the solenoids of the selector valves. The selector valves direct hydraulic flow from the pump unit to the components.

It is the goal of this manual to make the routine maintenance and repairs on your TELSTA A-28/29D as easy as possible. Should questions arise regarding service, repair, operation, or parts, please contact any of the Mobile Tool International, Inc., offices listed on the title page of this manual.



BREAK-IN RECOMMENDATIONS

The following break-in procedures are recommended to enhance component life and safe trouble free operation of your TELSTA A-28/29D. These items should be performed after the first 30 days of use, after the first six months of use and then with the annual periodic inspection thereafter.

Flush the hydraulic system and replace the return filter.

Torque the lift mount bolts to the recommended torque specification. The accepted procedure for checking the torque of mount bolts is as follows:

a) With the vehicle on a level surface, the lift stored in the boom rest, and the parking brake set, remove and inspect one bolt at a time.

b) Lubricate bolt and torque to specification.

c) Mount bolts must be replaced every second inspection.

d) Replace mount bolts if any distortion or corrosion is evident.

NOTE: The correct mount bolt torque specification for your lift, will be listed on a decal at the mast. See special torque values section.

CAPACITIES

Hydraulic System

oil type ..... Dexron ATF-type A

oil capacity (reservoir) ..... 7 pints (3.3 Liters)

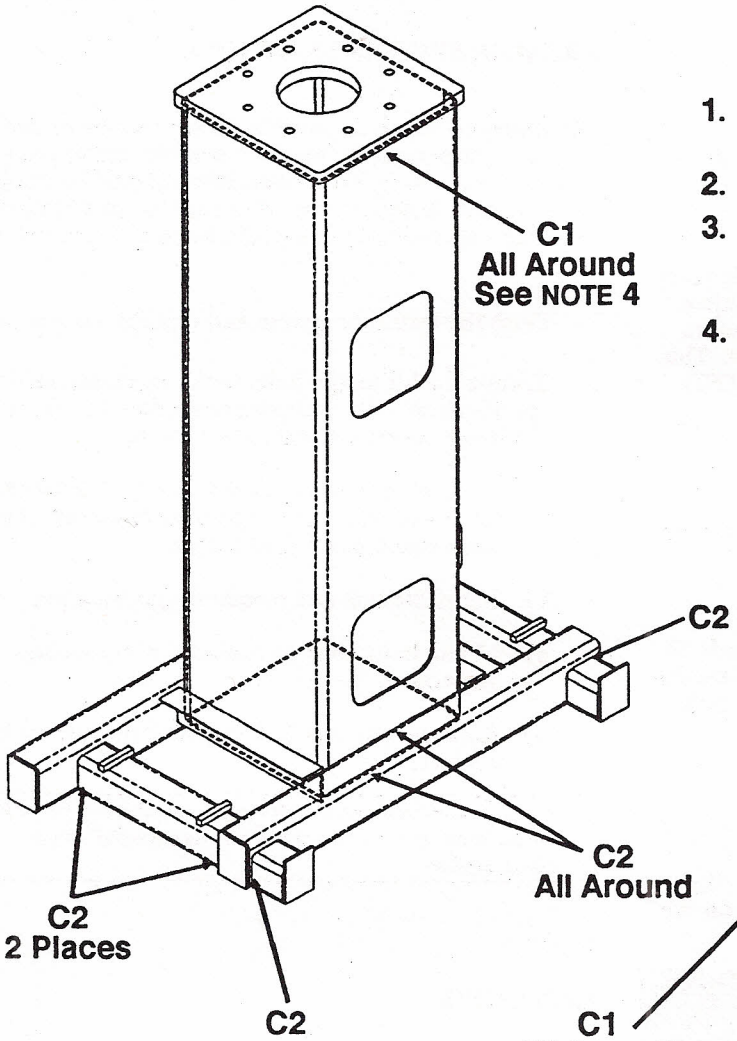
Azimuth (Rotation) Drive system

gearbox oil type ..... Mobil SHC-629

capacity ..... 3 pints (1.4 Liters)

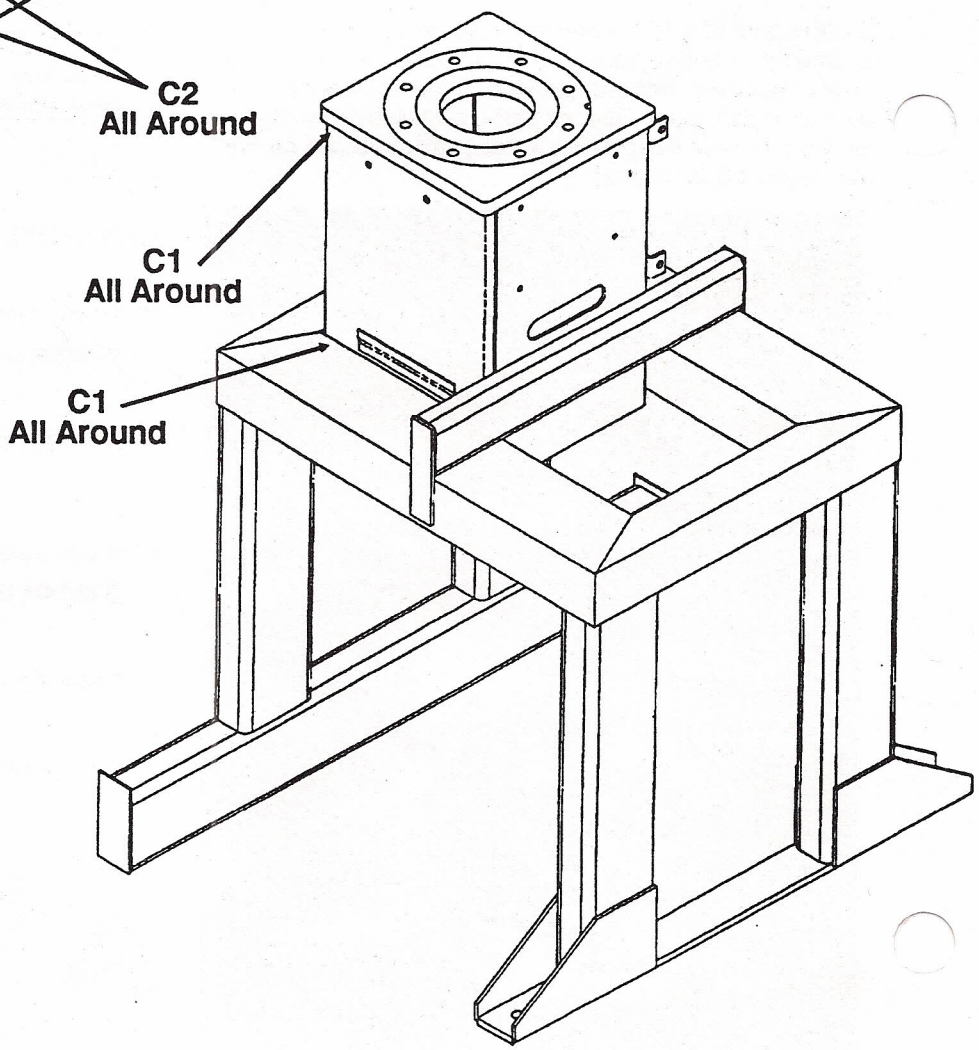
weight (without basket) .... 1402 lbs. (636 kg.)

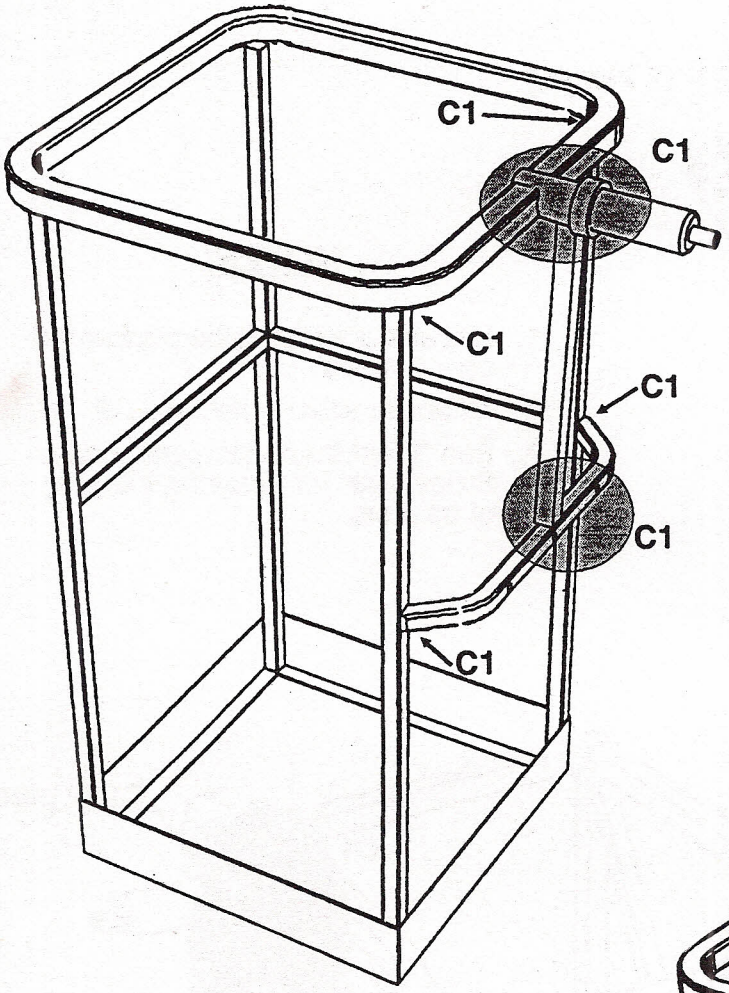
CAUTION: The lift weight is approximately 1402 lbs. (636 kg.) All lifting equipment should have lifting capacity exceeding this weight. The addition of a safety sling positioned around the boom with a maximum 12" (304.8 mm) slack, and lifting capacity of 2500 lbs. (1134 kg.) is required while lifting.



NOTES:

1. Repairs are **NOT** to be performed on C1 welds.
2. All unclassified welds are C2.
3. See "Weld Inspection and Repair Procedure" for assuring integrity of baskets.
4. This weld may be repaired, but only with written permission containing specific instructions from Mobile Tool International, Inc. Engineering.





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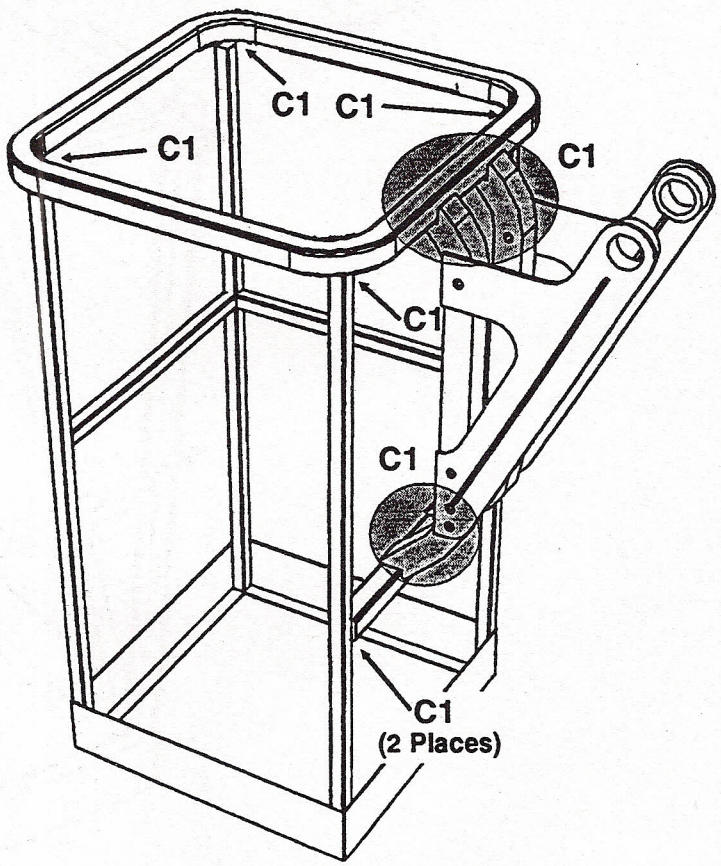

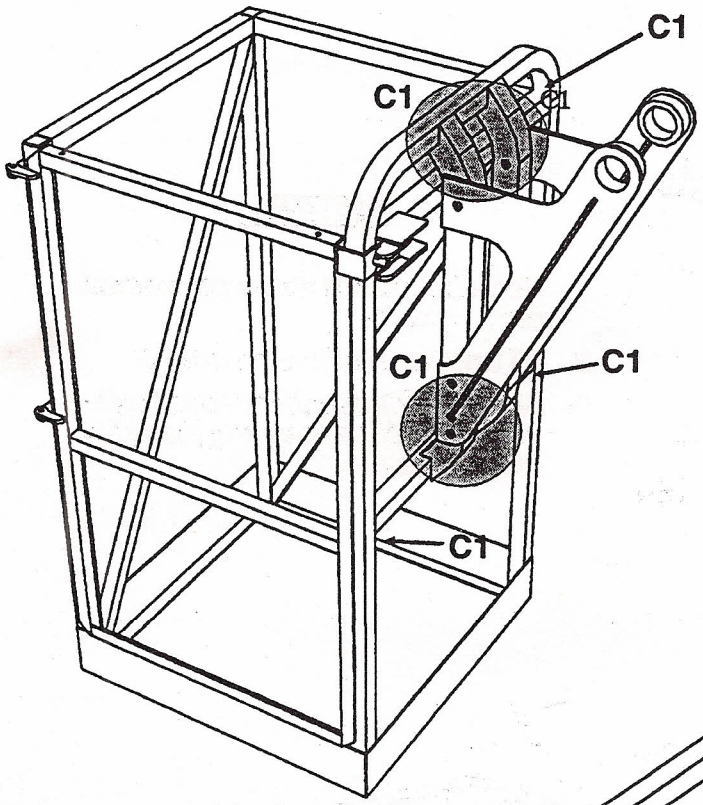

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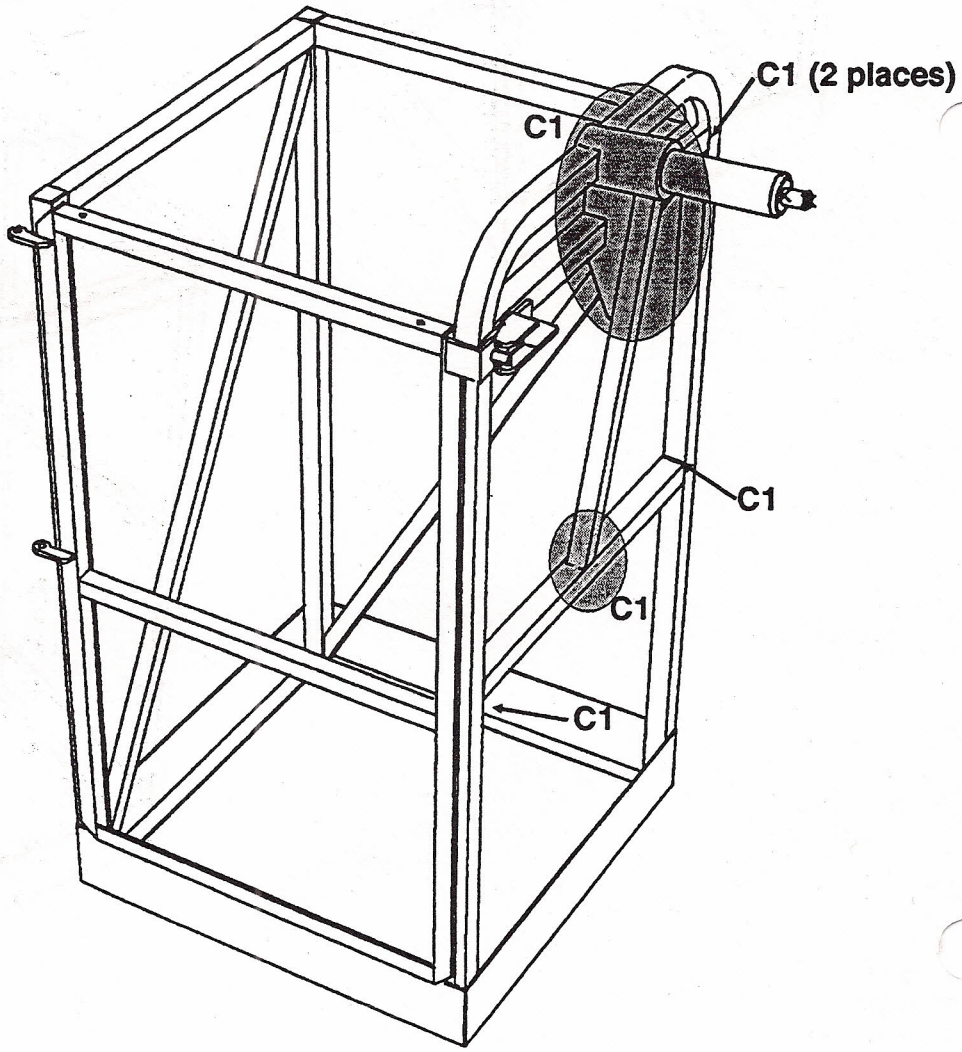

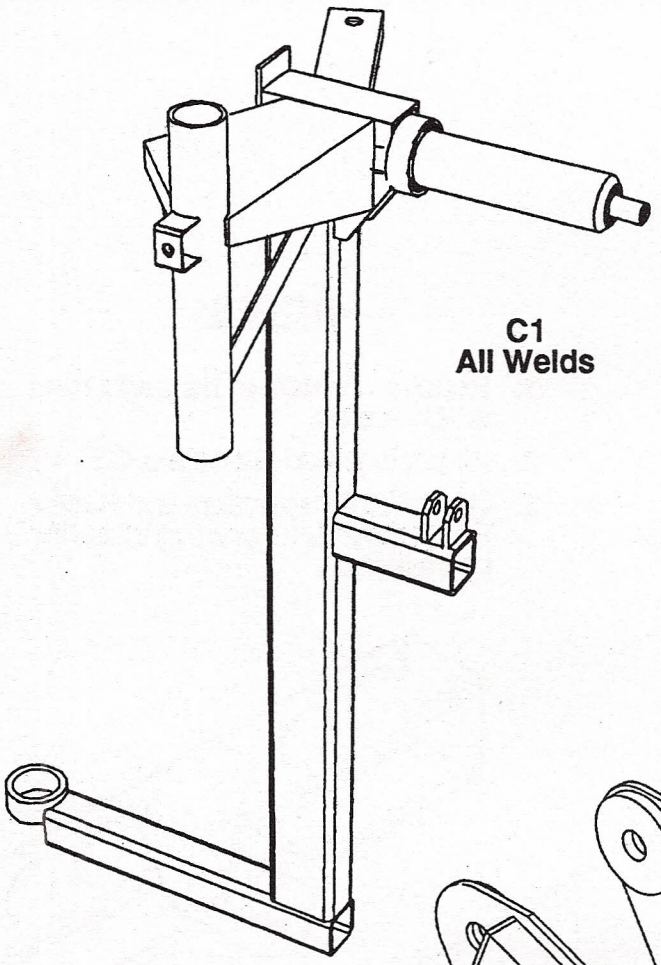

C1
All Welds

NOTES:

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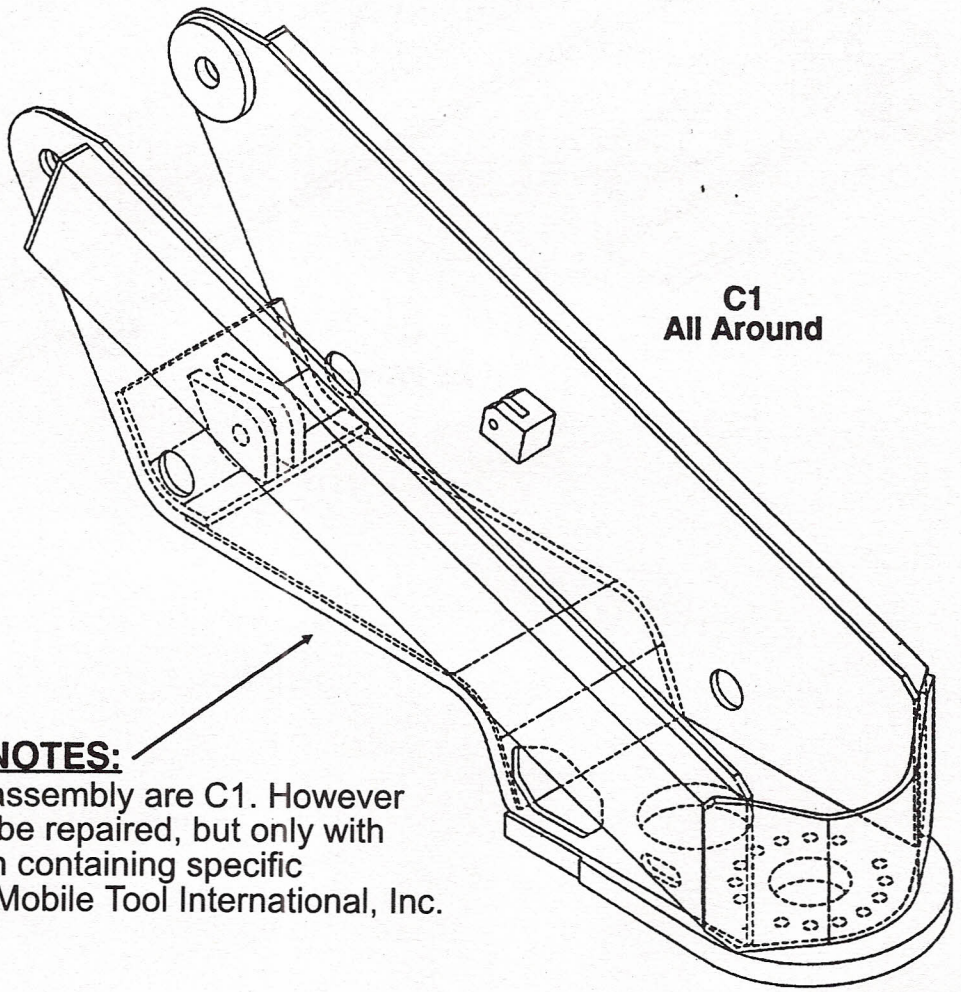

C1
All Around

NOTES:

1. All welds on this assembly are C1. However some welds may be repaired, but only with written permission containing specific instructions from Mobile Tool International, Inc. Engineering.

NOTES:

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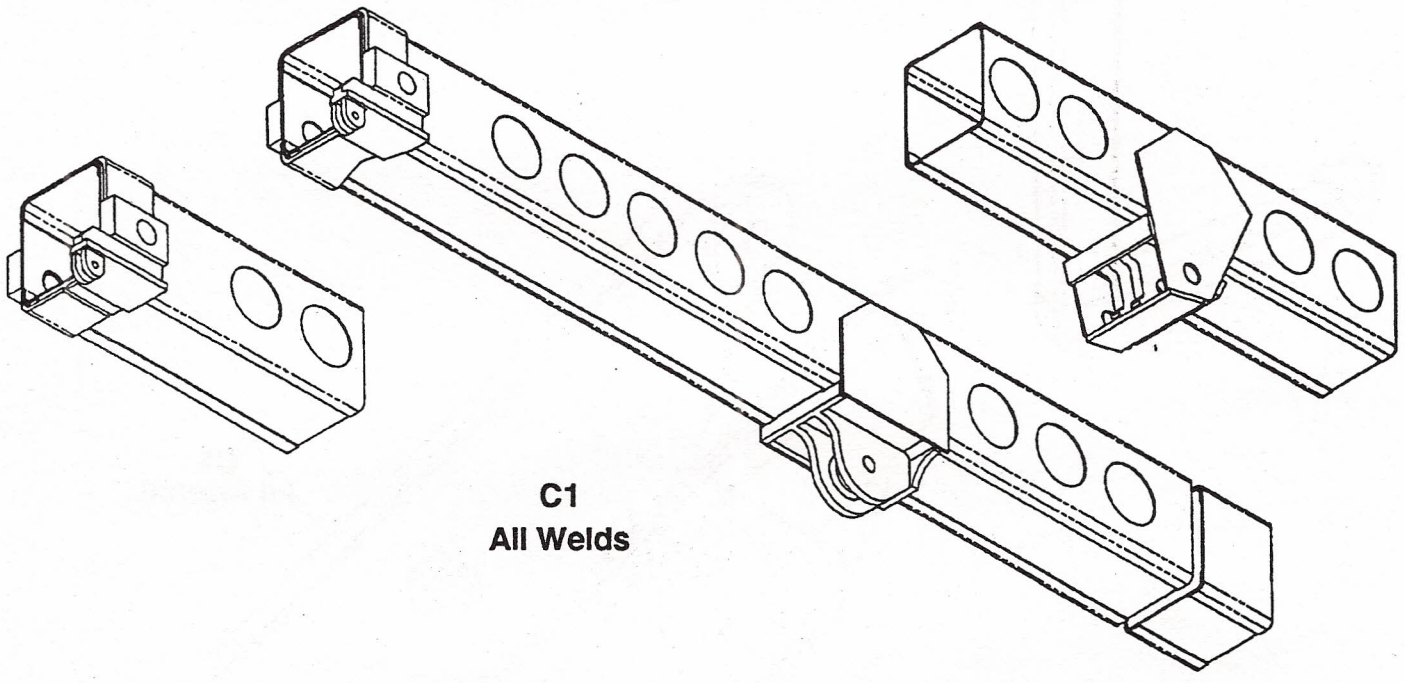
2. All unclassified welds are C2.
3. See "Weld Inspection and Repair Procedure" for assuring integrity of baskets.



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All Welds

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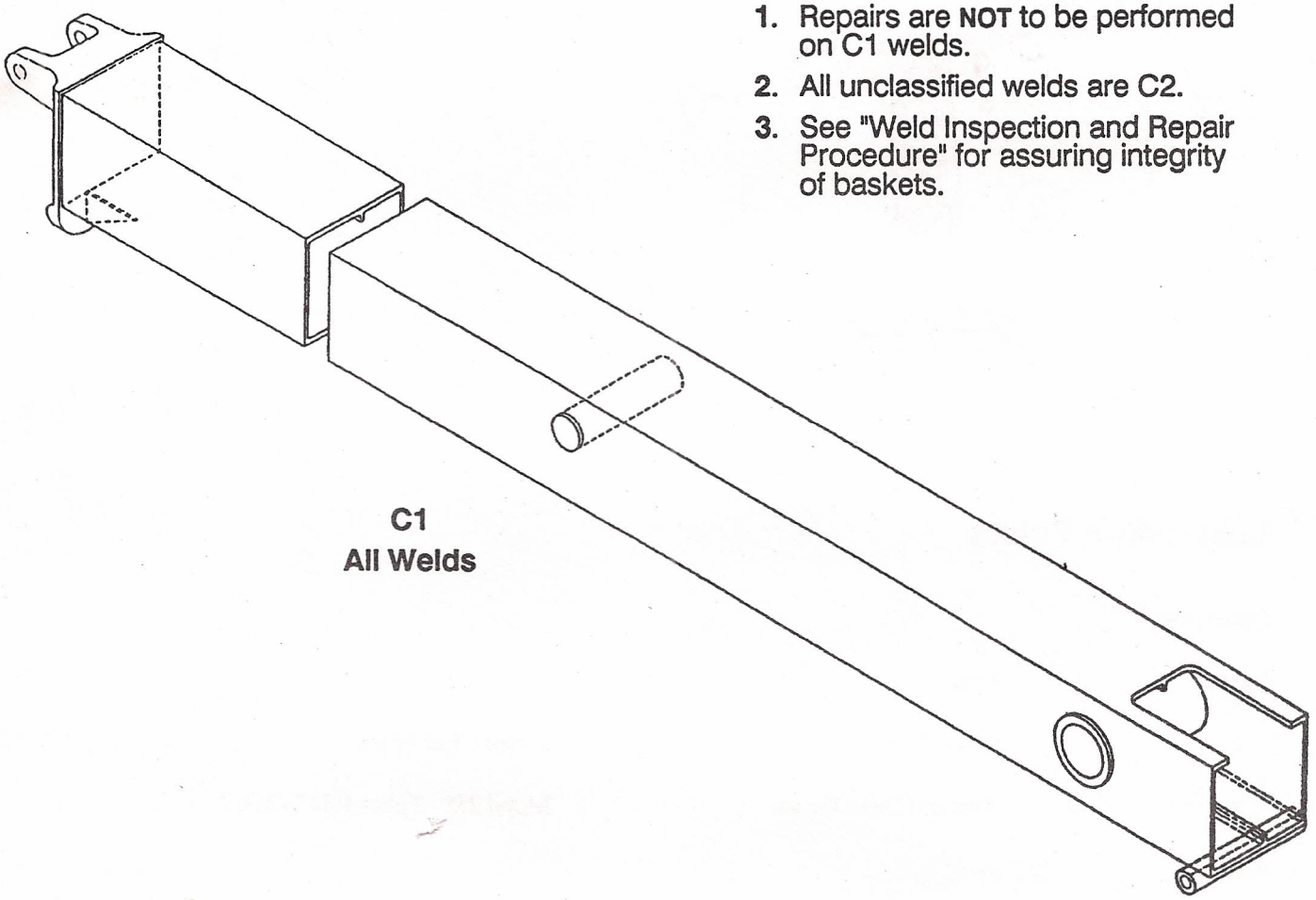
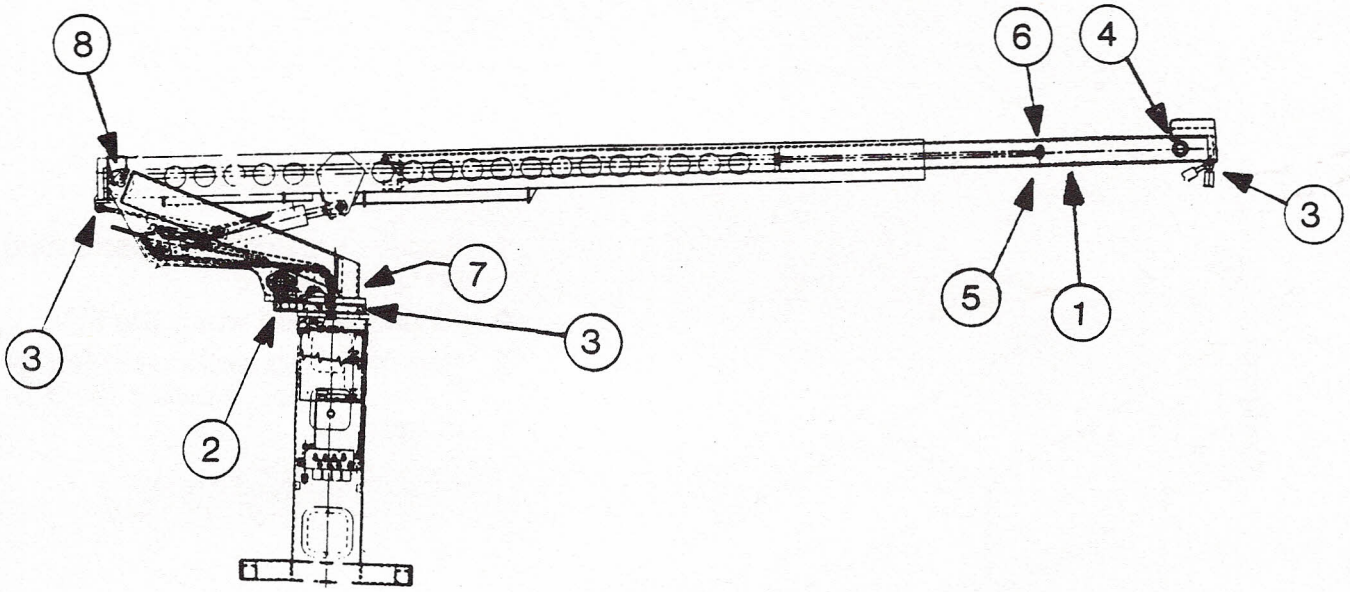


C1
All Welds

LUBRICATION CHART



Lubrication Points

Quarterly

Item #	Item	Lubricant
1.	Inner Boom	Silicone Lubricant
2.	Azimuth Drive Gears	Mobil 275 - Telsta P/N T-76317

Annually

3.	Leveling Cylinder Pins, Mast Bearing	Molybdenum Grease
4.	Basket Trunnion Shaft	White Bearing Grease

Biennially (Every two years)

5.	Extension Cylinder Anchor Bolt	White Bearing Grease

When repairing

6.	Extension Cylinder Rod End	Molybdenum Grease
7.	Azimuth Drive Gearbox	Mobil #634, SHC634, Texas Vanguard, Union NL6EP
8.	Boom Pivot Bearing	None, Teflon impregnated self lubricating

INSPECTION

After any assembly or structure has been disassembled, the parts should be thoroughly cleaned and inspected before reassembly. It is highly recommended that if any structure is rusty and requires repainting that it be sand blasted (or an equivalent cleaning method used) to facilitate inspection and repainting.

The welding at highly stressed load points should be closely inspected for any fatigue cracks that possibly could have occurred from damage caused by accidents or collisions with obstructions. Refer to the Critical Weld Section. This particularly applies to all attachment points and fitting areas where bolts and pins transmit loads from one member to the next.

All attachment hardware items, cap screws, special bolts, pins and nuts should be individually inspected for wear marks, scores, excessive rust and damaged threads. If any of these flaws are more than superficial those parts should by replaced.

FREQUENT INSPECTIONS

DAILY

☐	Power source:	On DC Drive units, check water level in batteries and top off as necessary with distilled water. Batteries are found at rear of pedestal on utility truck and near pedestal on van. On vehicle engine driven pump units, check V-Belt on pump for proper tension (1/2" (12.7 mm) at mid-point between pulleys). Check the oil level of the vehicle engine. Keep oil level at full mark of dipstick. Refer to vehicle manufacturer's "Owner's Manual" for oil recommendations. When equipped with auxiliary engine/generator, check the generator crankcase oil level. Keep oil level at full mark on the dipstick. Refer to Preventive Maintenance Section for specified fluids to be used. DO NOT OVERFILL. Change oil at recommended times. CAUTION: Operation of aerial lift on inclined surface with engine generator oil level below full mark may result in oil starvation and damage to the engine.
☐	Hydraulic fluid level:	Check reservoir sight glass. The hydraulic fluid level must split the sight glass with the boom in the boom rest. Check for hydraulic fluid in pedestal around hydraulic fittings, hoses, etc. If hydraulic fluid is found it may indicate a leak; the lift must not be operated until the leak is repaired.
☐	Vehicle:	Check vehicle tires for condition and air pressure. Low air pressure will reduce vehicle stability. Follow the tire manufacturer's recommendations.
☐	Rotation:	Check turntable rotation area for materials that may interfere with boom and turntable rotation.
☐	Controls:	Check operation of all switches, controls, etc. on both ground control and basket control station in order to ensure that boom and turntable are operating properly. If not, they should be repaired before using the lift.
☐	Basket Override Switch:	Check that the override switch, at the ground control station, turns the power off to the function controls at the basket, when flipped to the "Override" position.
☐	Basket:	Check basket door latch and back-up door snap. The lift must not be used if both systems are not fully functional.

WEEKLY (in addition to daily checks)

☐	Mount Bolts:	On van, inspect the four bolts attaching the mast to the mast mounting frame for looseness or cracks. Inspect truck frame at lift attachment for cracks. Inspect mounting U-bolts on utility trucks.
☐	Basket:	Inspect basket attachment for both tightness of nut and freedom of movement. If basket is loose, tighten nut, and if basket trunnion needs lubrication, remove basket, lubricate, and then re-install basket. See Preventive Maintenance Lubrication instruction for specific lubricant.
☐	Hydraulic Cylinders:	Check pivot pins at cylinder attachment for wear, proper positioning of wedge plate, and lubrication. Elevate the boom, and inspect these pins, ensuring they do not rotate in mount. Replace pins if worn. This includes the elevation cylinder and the extension/retraction cylinder. Inspect trunnion attachment and hydraulic cylinder attachment at both basket and boom for condition and security. Check areas surrounding basket attachment point.

PERIODIC INSPECTIONS

MONTHLY (in addition to daily and weekly checks)

NOTE: This inspection must be performed by a qualified individual.

☐	Engine Generator:	See Engine - Generator Service Chart. Check generator power cables for security and condition.
☐	Control/Power Cables:	Inspect cables, and hydraulic lines in boom, at entry through vehicle floor to turret, turret top to boom and at other points where cables and hoses are exposed, for damage, power track, both cable and track condition: i.e. twisted areas or breaks in insulation sheath, cuts, abrasions, etc.
☐	Elevation/Positive Leveling:	Inspect elevation cylinder, slave and master cylinder, tubing, hose connections, etc. for condition and evidence of leakage. Inspect cylinder piston rods for corrosion, scarring, or other damage.
☐	Battery:	Follow the vehicle manufacture's recommendations.
☐	Rotation Drive:	Inspect the rotation drive system. Check rotation limit switch for proper function.
☐	Hydraulic Reservoir:	Check level in reservoir with cylinders fully retracted. Fill until visible in sight glass. DO NOT OVERFILL!
☐	Booms:	Inspect inner and outer booms for stress cracks. Inspect support bearings and mount bolts.

BIANNUALLY (In addition to monthly, weekly, and daily)

NOTE: This inspection must be performed by a qualified individual.

☐	Boom:	The inner boom should be extended fully, and the unit should be steam cleaned. Allow the boom to dry. Spray boom with a silicon lubricant until wet. Wipe excess off.
☐	Azimuth Drive:	Remove guard and inspect gears. Spray gear lubricant, reference TELSTA Part # T-76317 . Reinstall guard.
☐	Plastitrack/Cables:	Steam clean the plastitrack and cables inside outer boom. Check plastitrack for cracks or broken sections. Check for wear patterns or cuts in boom cables and hoses. Lubricate with silicone lubricant.

ANNUALLY (In addition to biannual, monthly, weekly, and daily)

☐	Azimuth Drive:	Check azimuth backlash with the boom positioned off the right rear (passinger side) and at the right front of the chassis by lowering and extending the boom fully. Mark the center line of the basket and manually push the basket side to side. Use approximately 20 lbs. of force. If the basket pivots more than 12 inches to either side, the back lash must be adjusted (See trouble shooting/adjustment section).
☐	Basket:	Inspect basket structure for cracks, or other damage.
		Inspect basket trunnion bearings and safety chains.
		Inspect basket door, door latch, hinges, and safety chain.
		Inspect all warning decals and signs. If illegible, replace.
		Inspect safety belt lanyard attachment point.
☐	Basket Controls:	Check function of each control.
		Inspect water-proofing of each control.
☐	Boom Wear/Support:	Inspect inner and outer booms
		Inspect bearings for cracks, excessive wear, distortions and misalignment.
		Check operations of all bearings.
		Check operation and condition of cattrack assembly.
☐	Ground Controls:	Check functioning of all controls.
		Inspect weather proofing of each control.
		Inspect all warning decals and signs. If illegible, replace.
☐	Electrical:	Inspect fuses at the main junction box. Fuses should match labeled rating.

Inspect cables for insulation breakage, cuts, and wear from rubbing on moving parts or at bulkhead fittings.

Check connections for tightness.

Inspect condition of receptacles and covers.

Inspect cables in mast for excessive twisting.

☐ Engine - Generator: Perform all necessary routine servicing. In addition to the following, see Engine - Generator Service Section for specific procedures.

☐ Extension Systems: Check Valve, Hoses, and Cylinder mounts.

Inspect plastitrack assembly.

☐ Basket Attachment: Remove basket from boom.

Inspect basket attachment point for stress cracks and misalignment.

Lubricate trunnion shaft and reinstall basket.

Inspect cable and hose routing.

☐ Hydraulic System: With boom lowered to the side of the unit and the boom fully retracted, drain hydraulic reservoir. Replace hydraulic filter TELSTA Part Number T-19727.

Refill the reservoir using Mobil, ATF 220, or equivalent (Dexron II).

Operate the boom through full elevation and lower completely. Extend and retract the boom fully. Add fluid to reservoir as necessary.

Inspect all fittings for leaks.

Inspect all cylinder attachment points.

Inspect all cylinders for leakage and general condition.

☐ Lower Structure: Inspect turret and pedestal for cracks, distortions, and misalignment.

Check torque and condition of all lift mount bolts.

Inspect beneath vehicle for cracks, distortions, and excessive corrosion of mounts and frames.

Check for more than 12" (304.8mm) of side play in rotation system with the basket fully extended.

BIENNIAL (Every two years, in addition to Annual)

☐ Azimuth Drive: Remove and inspect, ring gear/mast bearing mount bolts. Torque 1/2" bolts to 70 FT/LBS (9.7 Kg/m) and 5/8" bolts to 140 FT/LBS (19.4 Kg/m). See Trouble Shooting /Adjustment Section.

☐ Extension: Remove and inspect, extension cylinder rod end mount bolt. Torque bolt to 75 FT/LBS (10.4 Kg/m). See Trouble Shooting /Adjustment Section.

REMOVAL/INSTALLATION

END HUNG BASKET

CAUTION: Removal and handling of a basket requires either an overhead support device or two men. Do not attempt to remove and handle a basket alone.

Note: Before attempting to remove basket, extend and lower boom to place the basket as close to the ground as possible.

REMOVAL

1. Remove all tools and equipment from basket.
2. Turn generator key switch to the off position.
3. Remove the function fuse.
4. Remove shrouds from basket attachment weldment.
5. Disconnect and support slave cylinder.
6. Remove the cotter pin and castle nut on trunnion shaft.
7. Supporting the basket, remove the trunnion shaft.

INSTALLATION

1. Lubricate the trunion shaft with a light bearing grease.
2. Position basket and insert trunnion shaft.
3. Run the castle nut onto the trunion shaft until it bottoms out against the retainer plate. Back the castle nut out until the second set of ears align with the cotter pin hole. Check to make sure the basket retainer plate pivots freely. Note: back the castle nut off until the next set of ears align with the cotter pin hole.
4. Reconnect and lubricate slave cylinder.
5. Install the shrouds.
6. Replace function fuse and test basket controls for correct operation.

SIDE HUNG BASKET

CAUTION: Removal and handling of a basket requires either an overhead support device or two men. Do not attempt to remove and handle a basket alone.

Note: Before attempting to remove basket, extend and lower boom to place the basket as close to the ground as possible.

REMOVAL

1. Remove all tools and equipment from basket.
2. Turn generator key switch to the off position.
3. Remove the function fuse.
4. Disconnect and support slave cylinder.
5. Remove the cotter key, and castle nut from basket trunnion shaft.
6. Remove basket.

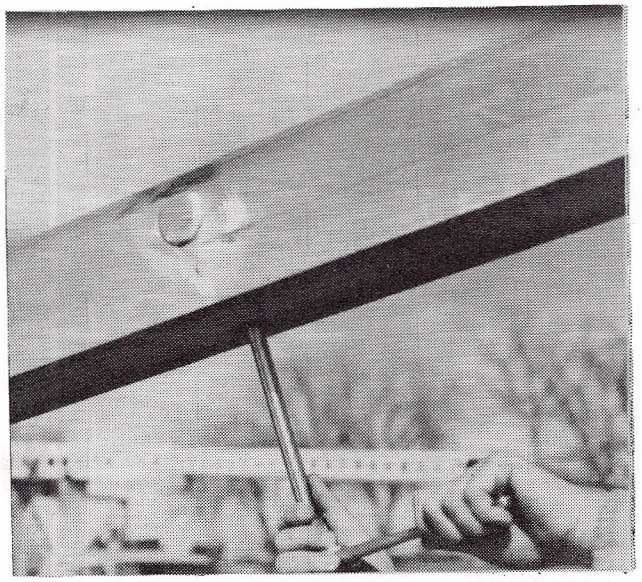
INSTALLATION

1. Lubricate the trunnion shaft with a light bearing grease.
2. Slide the basket trunnion shaft through the support bearings of the inner boom.
3. Run the castle nut onto the trunion shaft until it bottoms out against the retainer plate. Back the castle nut out until the second set of ears align with the cotter pin hole. Check to make sure the basket retainer plate pivots freely. Note: back the castle nut off until the next set of ears align with the cotter pin hole.
4. Install a new cotter pin.
5. Reconnect and lubricate the slave cylinder.
6. Replace function fuse and test basket controls for correct operation.

INNER BOOM

REMOVAL

1. Extend boom fully.
2. Through the access hole on the bottom surface of the inner boom, with a 15/16" socket, remove the extension cylinder rod end mount bolt.
3. Retract the cylinder rod by actuating the "In" function switch.
4. Remove the basket.



Extension Cylinder Rod End Attachment Bolt Access Hole

5. Remove the slide blocks at the end of the outer boom.
6. Remove the cable guard from beneath the outer boom.
7. Disconnect the cables, hydraulic and pneumatic hoses, and the plastitrack cable guard anchor plate.
8. Pull the plastitrack cable guard, cables, and hoses straight out to the rear inside the outer boom.
9. Remove the inner boom by sliding it out the front of the outer boom.

> **CAUTION:** Use overhead support when removing an inner boom . Never attempt to remove an inner boom without overhead support.

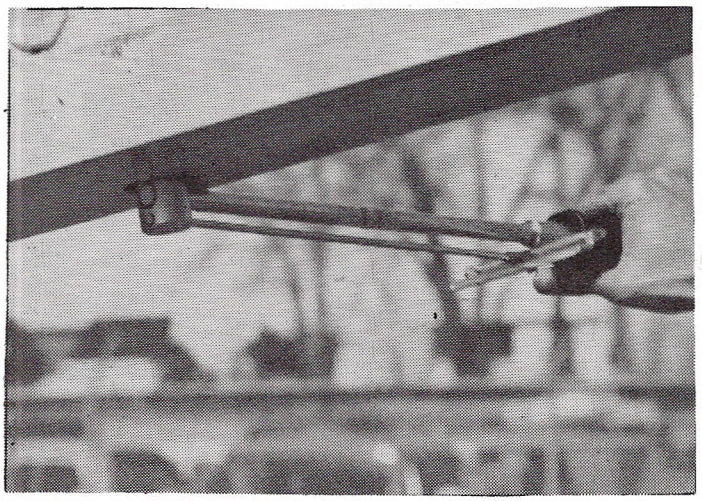
INSTALLATION

1. Carefully align inner boom with outer boom and insert plastitrack.
2. Slide the inner boom in until it is just short of the extension cylinder.
3. Lift the extension cylinder up to a level where support slide block aligns with opening in rear of the inner boom.
4. Slide the boom past the extension cylinder support slide block.
5. Make the bend in the plastitrack cable guard and insert cables and hoses through the hole in the bottom of the outer boom.
6. Install the plastitrack anchor nuts. Connect cables and hoses. Reinstall the cable guard.
7. Install the slide blocks at the end of the outer boom.

> NOTE: Do not exceed 70 INCH/POUNDS of torque when installing slide block retaining bolts.

8. Reinstall the basket.
9. Extend the extension cylinder until the rod end aligns with the access hole in the inner boom.
10. Coat the bolt with Zinc Chromate and allow to dry. Coat the bolt with "Never Seize" or equivalant lubricant and torque the bolt to 75 FT/LBS (10.4 Kg/m).

> NOTE: The cylinder attachment bolt (TELSTA Part number T-19229) has a special coating to inhibit the fusion of the steel bolt with the aluminum inner boom. NEVER replace this bolt with untreateded hardware.



Torque Bolt to 75 Ft/Lbs.(10.4 Kg/m)

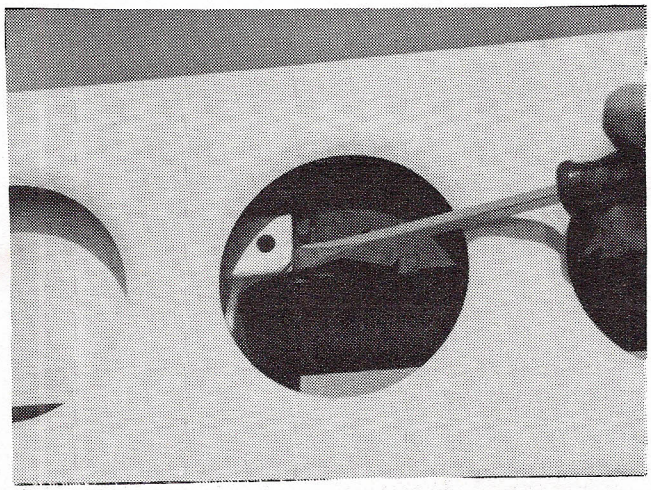
PLASTITRACK/BOOM CABLES

REMOVAL

1. Extend boom fully. Turn the key switch to the off position and remove the function fuse.
2. Remove the cable guard beneath the outer boom.
3. Disconnect the cables, hydraulic and pneumatic hoses, and the plastitrack anchor nuts.
4. Pull the plastitrack, cables, and hoses straight out to the rear inside the outer boom.
5. Remove the basket control pod. Disconnect all of the wires and hoses.

NOTE: Installation will be eased if all wire labels are intact. In the event that the cables are to be replaced, cut each wire so the wire label remains attached to each component on the control pod. This provides markers to install the new cable.

6. Remove cable clamps. Attach a fish line to the cables.



Plastitrack Attachment Point

7. At the plastitrack attachment point on the heel of the inner boom, insert a screw driver and gently pry in while twisting the plastitrack until the plastitrack snaps loose.

8. With the plastitrack on its side so that it will bend toward you, remove through side of outer boom.

INSTALLATION

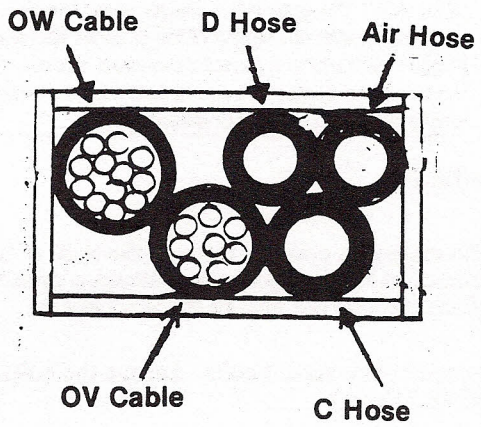
1. Before installing plastitrack/boom cables, check cable and hose position to be sure it conforms with the illustration below. Failure to do so may result in shortening the useful life of the O-W Cable. Also be sure to tie wrap cables and hoses where they will lie in the inner boom. Failure to do so may result in a pinched cable or hose between the extension cylinder slide block and the guide track.

2. Tie the fish line around basket control end of the cables and wrap with tape.

3. Pull the cables back through the boom feeding the cables and plastitrack through the same outer boom access hole they were removed from.

4. Snap the plastitrack into the mount on the heel of the inner boom.

5. Visually sight through the inner boom to assure that the cables and hoses are not protruding over into the extension cylinder slide block side of the inner boom. Reposition the cable if necessary.



Cable/Hose Alignment - viewed at the inner boom attachment

6. Replace the cable clamps securing the cables to the inner boom.

7. Install the basket control pod.

8. Feed the cables and hoses through the hole in the bottom of the outer boom. Secure the plastitrack anchor nuts, and reconnect the cables and hoses.

9. Install the cable guard.

10. Replace the function fuse and test all controls and receptacles for correct operation.

EXTENSION CYLINDER

REMOVAL

1. With the boom in a level position, extend it until the cylinder rod end mount bolt access hole in the bottom of the inner boom is visable.

2. With a 15/16" socket, remove the rod end cylinder attachment bolt throught the access hole.

3. At the heel of the outer boom, remove the hose guard.

4. Mark and remove the hoses attached to the extension cylinder.

NOTE: Never remove the hoses while the power source is engaged. Never start the power source while the hoses are removed.

5. Remove the four mount bolts from the swivel plate at the heel of the outer boom.

6. Slide the extension cylinder out through the heel of the outer boom.

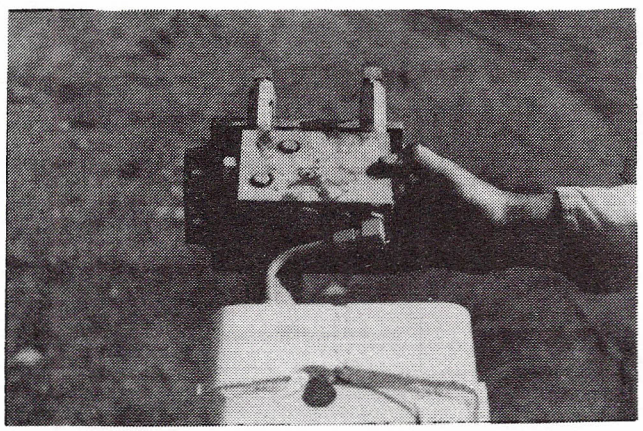
CAUTION: The extension cylinder is not overly heavy, but with the length of the cylinder and the height from which it must be removed, the use of an overhead support device or two men for removal and installation is recommended.

INSTALLATION

1. Slide the extension cylinder through the back of the outer boom. Align and guide the extension cylinder slide block through the heel of the inner boom.
2. Install swivel plate mount bolts. Torque the bolts to 70 FT/LBS (9.7 Kg/m).
3. Reconnect hydraulic lines to extension cylinder holding valve.
4. Install the hose guard.
5. Extend the extension cylinder until the rod end aligns with the access hole.
6. Coat the bolt with Zinc Chromate and allow to dry. Coat the bolt with "Never Seize" or equivalant lubricant and torque the bolt to 75 FT/LBS (10.4 Kg/m).

CAUTION: The cylinder attachment bolt (TELSTA Part number T-19229) has a special coating to inhibit the fusion of the steel bolt with the aluminum inner boom. NEVER replace this bolt with untreated hardware.

EXTENSION CYLINDER HOLDING VALVE



Extension Cylinder Holding Valve

REMOVAL

1. Extend the boom until bolt access hole is visable under the inner boom.
2. At rear of outer boom remove cable guard plate.
3. Mark and remove hoses from the holding valve fittings.
4. Remove the swivel plate mount bolts.
5. At the basket, push the inner boom in until the holding valve clears the heel of the outer boom.
6. Disconnect the steel line and remove the holding valve mount bolts.

INSTALLATION

1. Connect the front port of the holding valve to the steel line. Do not tighten.
2. Check alignment of O-rings and start holding valve mount bolts. Run each mount bolt in until it just touches the valve body.
3. Torque each mount bolt to approximately 29 FT/LBS.
4. At the basket push out until the swivel plate seats against the outer boom.
5. Install swivel plate attachment bolts and torque to approximately 70 ft/lbs.
6. Reconnect the hoses and install hose guard.
7. Bleed the system by extending and retracting the boom fully. Check hydraulic oil level in reservoir with the boom fully retracted and in the boom rest. Check hoses and valve for hydraulic leakage.

ELEVATION CYLINDER

REMOVAL

1. Elevate boom to approximately 45 degrees.
2. Support the boom with an overhead hoist or jack with a minimum of a one ton rated capacity.
3. Remove rod end clevis pin.
4. Supporting the elevation cylinder either raise boom with hoist or jack, or actuate the "Down" function.
5. Disconnect hoses from the cylinder.
6. Remove cylinder anchor pin at base of cylinder and remove cylinder from the unit.

INSTALLATION

1. Slide cylinder into mount in turret.
2. Install the base end cylinder anchor pin.
3. Attach hydraulic hoses.

4. Align rod end with clevis weldment of outer boom. Either extend cylinder by actuating the "out" function or lower boom with hoist or jack. Insert rod end anchor pin.

5. Lubricate both anchor pins.

6. Test unit for function.

ELEVATION CYLINDER HOLDING/EMERGENCY LOWER VALVES

REMOVAL

1. Elevate the boom to approximately 45 degrees.

2. Support the boom with an overhead hoist or jack with a minimum of one ton rated capacity.

> **DANGER:** Never remove the cylinder holding valve or emergency lower valve while the lift is not supported by a jack or over head hoist.

3. If removing the emergency lower valve, disconnect the wires from the solenoid.

4. Remove the valve cartridge from the cylinder.

INSTALLATION

1. Lubricate the valve cartridge "O" ring liberally with hydraulic oil.

2. Install cartridge into cyinder and torque to approximately 30 FT/LBS (4.1 Kg/m).

3. Raise and lower boom to achieve full stroke of elevation cylinder.

4. Inspect for leakage.

AZIMUTH DRIVE GEAR BOX

REMOVAL

1. With the boom in rest and secured, disconnect and remove the motor from the gearbox..

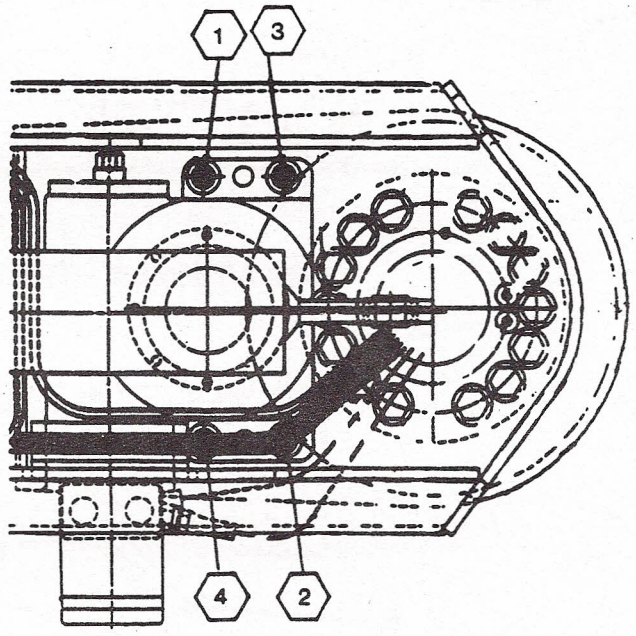
2. Remove the gearbox mount bolts and remove the gearbox.

INSTALLATION

1. Align pinion gear with ring gear and slide gearbox into place.

2. Align gearbox with mount holes. Rotate using manual hand crank on the square stud if necessary. Remove crank when finished.

> **DANGER:** Never engage the Azimuth Drive Motor while the hand crank is in use. Engagement of the electric motor while the hand crank is attached to the input stud, will propel the hand crank off at a high velocity.



Azimuth Gearbox Bolt Torque Sequence

3. Remove gear guard below the wing structure.

4. Clean and coat mount bolts with Loctite 242. Run all bolts in until they touch.

5. Using spanner wrench (TELSTA Part # T-76386) apply enough tension to insure full engagement of the gears.

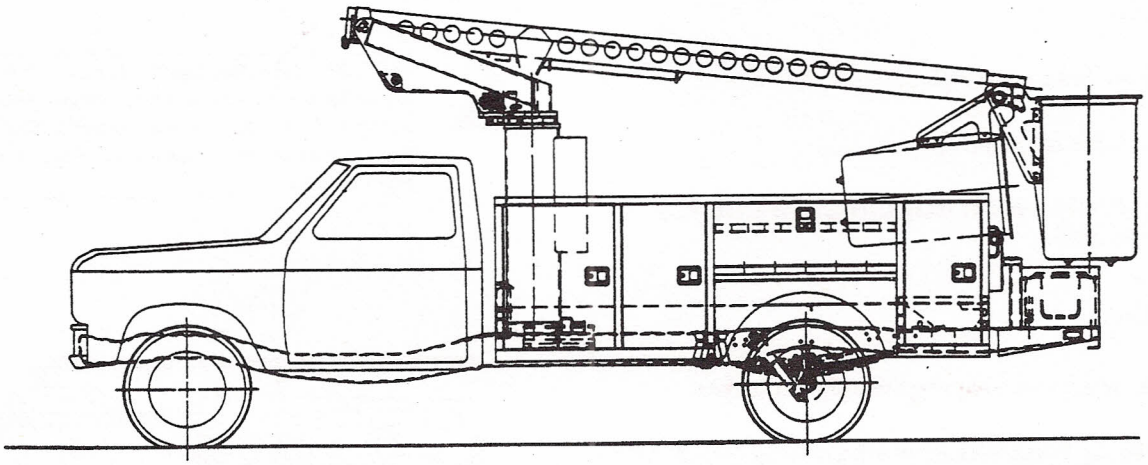
6. Torque each mount bolt to 75 FT/LBS (10.3 Kg/m). Repeat procedure and torque each bolt to 110 FT/LBS (15.2 Kg/m).

7. Lubricate gears with Mobile 275 (TELSTA Part # T-76317) and reinstall gear guard.

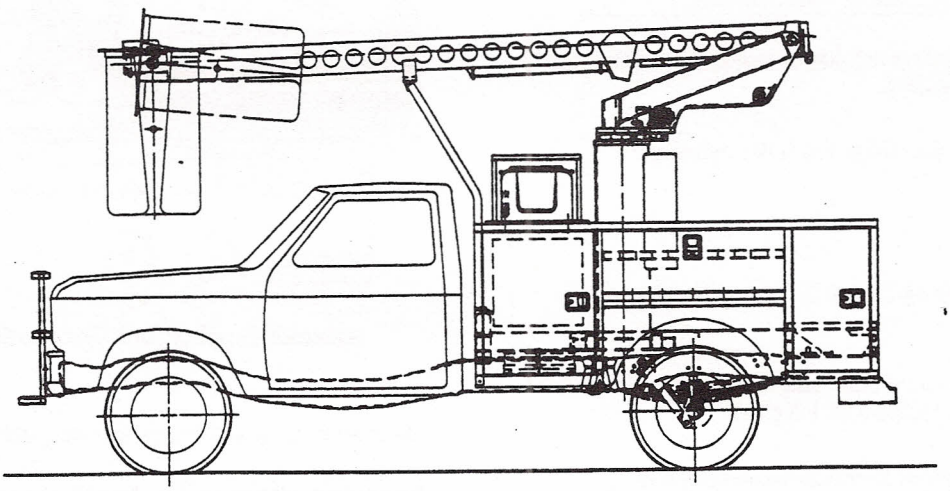
8. Reinstall motor .

9. Start generator and test for correct rotation.

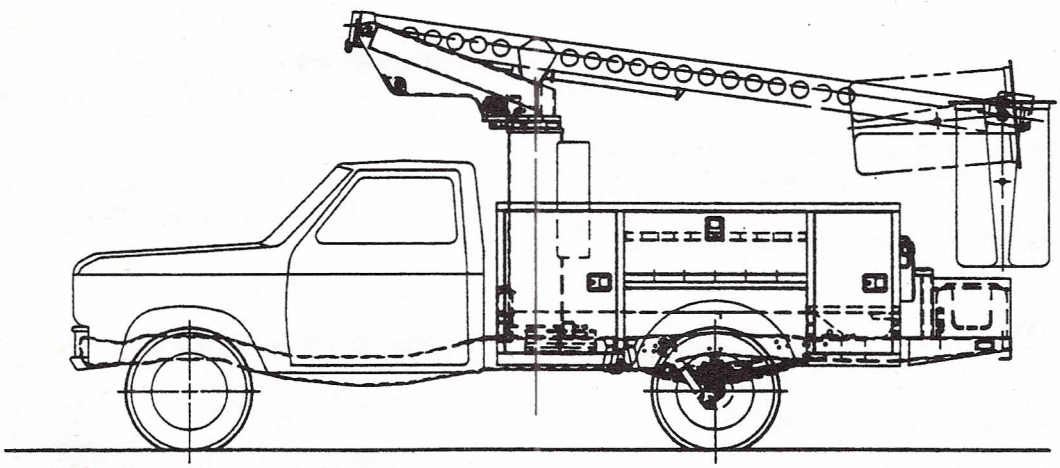
10. With basket lowered to ground level, position a foot at the center line of the basket. Applying approximately 30 LBS of pressure, rock the basket back and forth. If the basket moves more than 12 inches to one side from the center line, repeat steps 5 through 9.



A-29 Aft Mount - End Hung Basket, on 84" Utility Body



A-28 Forward Mount - Side Hung Basket, on 60" Utility Body



A-28D Aft Mount - Side Hung Basket, on 60" Utility Body

TROUBLESHOOTING/ADJUSTMENTS

Elevation System

Unit drifts down

CAUSE:

Holding Valve, Emergency Lower Valve, Cylinder Packing

PROCEDURE:

1. Elevate the boom to a 45 degree angle.

DANGER: Under no circumstances loosen or remove the holding valve or emergency lower valve from the cylinder while the boom is elevated and unsupported.

2. Disconnect the hoses from the "T" and "P1" Ports.

3. Allow unit to sit for ten minutes.

DANGER: Under no circumstances loosen or remove the holding valve or emergency lower valve from the cylinder while the boom is elevated and unsupported.

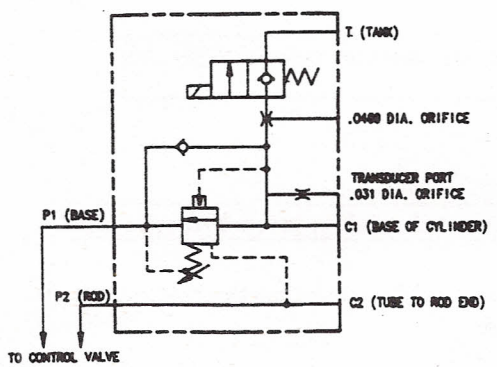
WARNING: Failure to reinstall the fitting before attempting to lower the boom will result in severe hydraulic leak.

If the unit continues to leak from the "P1" port then the holding valve is defective and must be replaced.

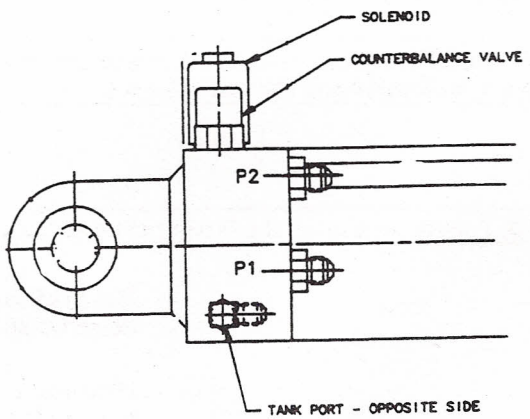
If the unit continues to leak from the "T" port then the emergency lower valve is defective and will have to be replaced.

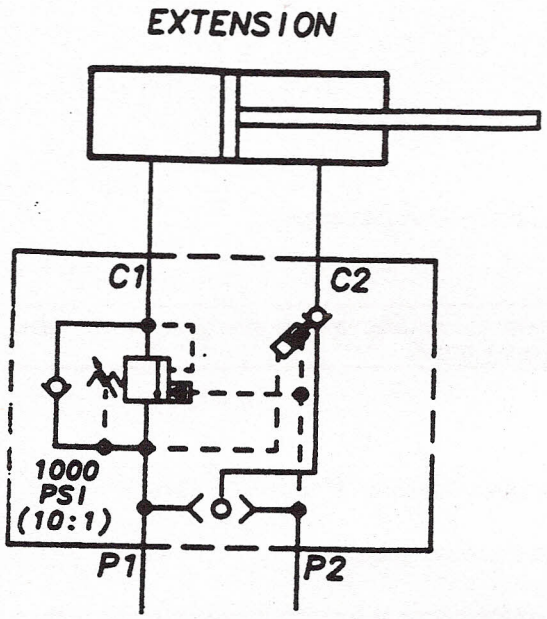
If the unit does not leak from either "P1" or "T" ports, then the cylinder must be replaced or repacked.

DANGER: Under no circumstances loosen or remove the holding valve or emergency lower valve from the cylinder while the boom is elevated and unsupported.



SCHEMATIC





Extension System

Unit drifts in

CAUSE:

Holding Valve, Cylinder Packing

PROCEDURE:

1. Extend and elevate the boom to a 45 degree angle.

DANGER: Under no circumstances loosen or remove the holding valve from the cylinder while the boom is elevated and the unit extended.

2. Disconnect the hoses from the "P1" and "P2" Ports.

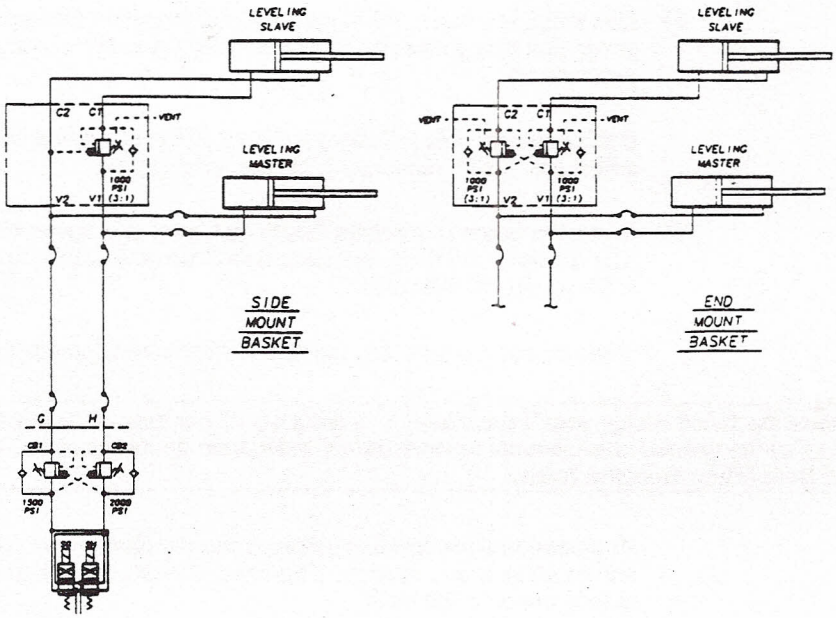
3. Allow unit to sit for ten minutes.

DANGER: Under no circumstances loosen or remove the holding valve from the cylinder while the boom is elevated and the unit extended.

WARNING: Failure to reinstall the fitting before attempting to lower the boom will result in severe hydraulic leak.

If the unit continues to leak from the "P1" port then the holding valve is defective and must be replaced.

If the unit continues to leak from the "P2" then the cylinder must be replaced or repacked.



POSITIVE LEVELING

Basket will not track, drifts out of position during use.

CAUSE:

Holding Valves, Slave Cylinder Packing, Master Cylinder Packing

PROCEDURE:

1. With the boom in the boomrest and the basket in the working position, Tee-in a hydraulic gauge to both of the "G" and "H" ports at the selector valve manifold. Note: Telsta P/N T-16471, Hydraulic test kit comes with a pair of gauges ideal for this testing.

2. Stow the basket fully. Bump the unstow momentarily to release system pressure.

3. Elevate the boom to a 45 degree angle. One gauge will pressurize, and the other will drop to 0.

   Observe the pressurized gauge closely as the unit is elevated.

   The pressure should relieve at approximately 2,000 psi.

   If the pressure fails to relieve before 2,500 psi, stop elevating immediately, and adjust the "CB2" valve to the correct relief setting (2,000 psi).

4. When the boom reaches 45 degrees, stop and observe the gauge closely. The pressure will drop, but should lock-up and hold at approximately 1,600 psi (+or- 100 psi).

   If the pressure drops to 0, the "CB2" holding valve cartridge must be replaced.

   If the pressure drops to approximately 100 to 300 psi and the other gauge that was at 0 now is pressurizing to an equal level, then one or both master or slave cylinders need to be repacked or replaced. To isolate the faulty cylinder repeat steps one, three, and four with the slave cylinder disconnected and the lines capped (Note: caps come with service kit).

5) Lower the basket to the fully lowered position. Bump the stow switch momentarily to release system pressure.

6) Lower the boom into the boom rest observing the pressurized gauge. The gauge that was pressurized will now read 0 and the other gauge will be pressurized.

   If the pressure fails to relieve before 2,500 psi stop lowering immediately, and adjust the "CB1" valve to a 1,500 psi relief setting.

7) When the boom reaches the boom rest, stop and observe the gauges closely. The pressure will drop, but should lock-up and hold at approximately 1,100 psi (+ or- 100 psi).

   If the pressure drops to 0, the "CB1" valve cartridge must be replaced.

Note: The above test will isolate the failed component if the basket is drifting out of position when in use or will not track. Other causes may be air in the system, loose mounts or worn mount bolts, bent hydraulic rams, or damaged check valve on slave cylinder from lifting excessive loads.

Repeated positive leveling failure is usually due to over loading the basket and/or using it as a derrick. This type of use is abusive and dangerous, and should not be condoned.

POSITIVE LEVELING BLEEDING PROCEDURE

1) Start with the boom fully lowered so the elevation cylinder is fully retracted.

2) Stow and lower the basket three times.

   Elevate the unit approximately 20 degrees.

   Stow and Unstow the basket three times.

   Repeat until boom is fully elevated. Lower and test for function.

If facility limitations restrict elevating the boom, the system may be bled using the following procedure:

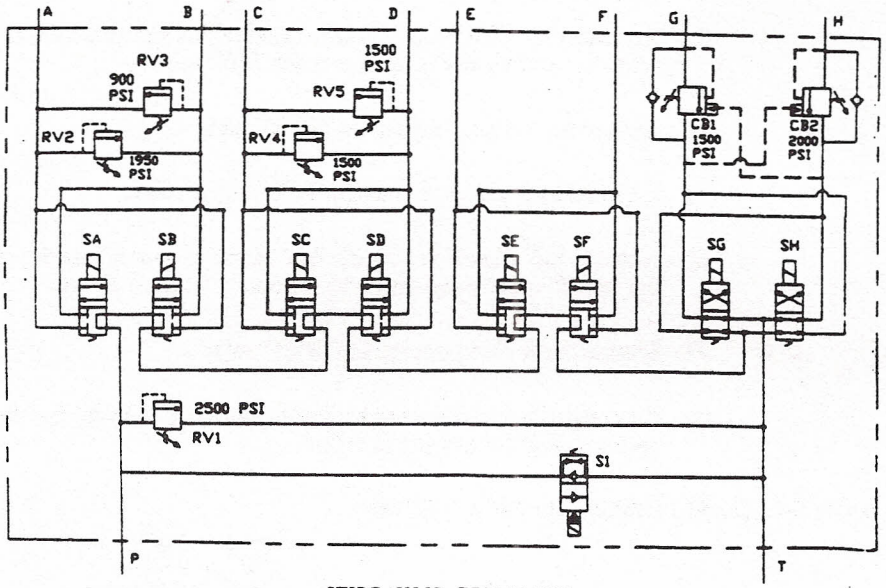
1) Start with the boom fully lowered so that the elevation cylinder is fully retracted.

2) Disconnect the master cylinder rod end from the boom.

3) Stow the basket fully. With the basket fully stowed and the power unit still engaged, crack the pressure line at the basket slave cylinder. Allow fluid to run into a container until it runs clear with no air bubbles. Tighten the fitting while the line is still under pressure.

4) Unstow the basket and crack the pressurized line on the slave cylinder. Allow the fluid to drain into a container until it runs clear. Tighten the line while it is still under pressure.

5) Reconnect the master cylinder rod end. Bring fluid level of reservoir up to split the sight glass. Note: Use Dextron II, ATF.



HYDRAULIC SCHEMATIC

RELIEF VALVE ADJUSTMENT PROCEDURE

Tee in a hydraulic gauge to the "P" port of the selector valve manifold.

Main System Relief

1) With the boom fully retracted, engage the "In" function.
2) Loosen the locking nut on the "RV1" relief valve.
3) Adjust the slotted screw of the "RV1" relief valve until the pressure reads 2500 psi.
4) Secure the locking nut on the "RV1" valve.

Elevation Relief Pressure

1) Elevate the unit until the Elevation Cylinder is fully extended. Continue to engage the "Up" function.
2) Loosen the locking nut on the "RV2" relief valve.
3) Adjust the slotted screw of the "RV2" relief valve until the pressure reads 1950 psi.
4) Secure the locking nut on the "RV2" valve.

Descent Relief Pressure

1) Lower the unit until the Elevation Cylinder is fully retracted. Continue to engage the "Down" function.
2) Loosen the locking nut on the "RV3" relief valve.
3) Adjust the slotted screw of the "RV3" relief valve until the pressure reads 900 psi.
4) Secure the locking nut on the "RV3" valve.

Rotation Relief Pressure

1) At the rotation hydraulic motor, disconnect the two hoses. Plug each hose.

2) Loosen the locking nut on the "RV4" relief valve.

3) Actuate the "Clockwise" function and adjust the slotted screw of the "RV4" relief valve until the pressure reads 1500 psi.

4) Secure the locking nut on the "RV4" valve.

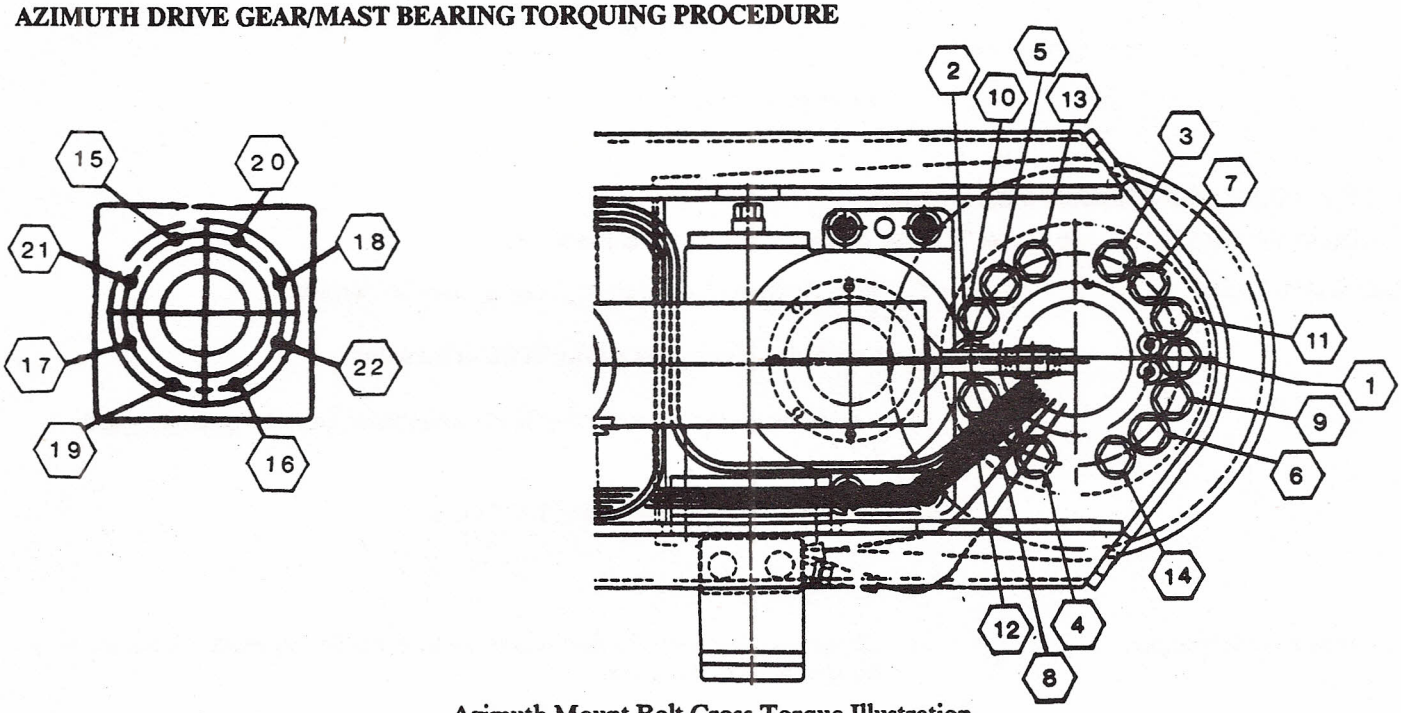
5) Loosen the locking nut on the "RV5" relief valve.

6) Actuate the "Counter - Clockwise" function and adjust the slotted screw of the "RV5" relief valve until the pressure reads 1500 psi.

7) Secure the locking nut on the "RV5" valve

8) Remove plugs and reconnect hoses to motor. Check Hydrauic fluid level, and test unit for proper function.

AZIMUTH DRIVE GEAR/MAST BEARING TORQUING PROCEDURE



Azimuth Mount Bolt Cross Torque Illustration

1) Position the boom so that it is unsupported by boom rest and as close to a horizontal position as possible.

2) Starting with bolt number one (reference cross torque illustation) remove one bolt at a time.

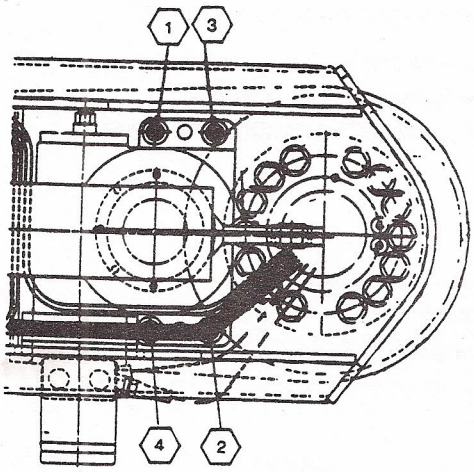
Inspect the threads of the bolt and bearing.

Coat the bolt removed or the replacement bolt with Loctite #271 or equivalent.

Torque the bolt to 100 FT/LBS (13.9 Kg/m).

Continue until all bolts have been removed, inspected or replaced, and reinstalled. Repeat the torque sequence torquing each bolt to 170 FT/LBS (23.5 Kg/m).

AZIMUTH BACKLASH INSPECTION/ADJUSTMENT



1) To adjust backlash, extend boom with no load in the basket. Elevate to an unsupported position, as close to horizontal as possible.

2) Remove gear guard below the wing structure.

3) Remove each Azimuth Gearbox mount bolt. Clean and coat with Loctite 242. Run all bolts in until they touch.

4) Using spanner wrench (TELSTA Part # T-76386) apply enough tension to insure full engagement of the gears.

5) Torque each mount bolt to 75 FT/LBS (10.3 Kg/m) using the cross torque sequence illustrated. Torque each mount bolt to 110 FT/LBS (15.2 Kg/m).

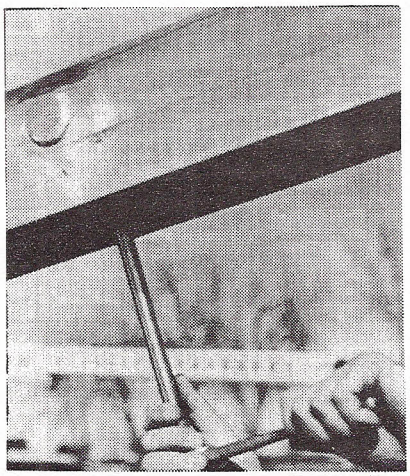
6) Lubricate gears with Mobile 275 (TELSTA Part # T-76317) and reinstall gear guard.

7) Reinstall gear guard cover.

8) Retest as outlined in inspection section.

NOTE: If excessive backlash develops in the working positions and can not be adjusted out, Extended gear life can be obtained by rotating the gear 180°.

Extension Cylinder Rod End Anchor Bolt



1) Extend inner boom until the bolt access hole on the bottom of the boom clears the slide blocks.

2) Remove the bolt through the access hole.

3) Inspect thread condition of the bolt.

4) Either a new bolt, TELSTA Part #T-19229 must be installed, or the old bolt must be coated with Zinc Chromate. Allow to dry.

5) Coat the bolt with "Never Seize".

6) Install and torque bolt to 75 FT/LBS.

NOTE: Every second year, or if the clevis anchor bolt is found to be loose, the clevis anchor bolt must be removed and checked for corrosion. With a light, check the threads of the anchor. If there is evidence of any interaction between the steel bolt and the aluminum anchor, both the bolt and the inner boom must be replaced.

TORQUE VALUES

The following table lists average torque values for grade 5 hex head bolts, when used with non-locking type nuts and tapped fixtures. If a "Crown Type" lock nut is being used refer to the other torque chart.

Grade 5 bolts are identified by three embossed lines on the head, 120 degrees apart. Torque values may vary depending on the application, however the values in this table may be used as a guide. A variation of ± 10 % is acceptable. This chart may also be used for socket head (Allen) bolts, which are all grade 8.

GENERAL TORQUE VALUES

THREAD			Grade 5 Assembly Torque in FT LBS (Kg/m)	
Nom. Diam.	Thrds. per in.	Type	Dry	Lubed
1/4	20 28	UNC UNF	8 (1.1) 9 (1.2)	6 (0.8) 7 (1.0)
5/16	18 24	UNC UNF	16 (2.2) 18 (2.5)	12 (1.7) 13 (1.8)
3/8	16 24	UNC UNF	29 (4.0) 33 (4.6)	21 (2.9) 24 (3.3)
7/16	14 20	UNC UNF	45 (6.2) 50 (6.9)	35 (4.8) 40 (5.5)
1/2	13 20	UNC UNF	70 (9.7) 80 (11.1)	50 (6.9) 60 (8.3)
9/16	12 18	UNC UNF	100 (13.8) 110 (15.2)	75 (10.4) 85 (11.8)
5/8	11 18	UNC UNF	140 (19.4) 155 (21.4)	105 (14.5) 115 (15.9)
3/4	10 16	UNC UNF	250 (34.6) 270 (37.3)	180 (24.9) 200 (27.7)
7/8	9 14	UNC UNF	350 (48.4) 390 (53.9)	260 (35.9) 290 (40.1)
1	8 14	UNC UNF	530 (73.3) 590 (81.6)	400 (55.3) 440 (66.8)
1 1/8	7 12	UNC UNF	725 (100.2) 800 (110.6)	525 (72.6) 600 (82.5)

The following table lists the torque values for the "crown type" lock nuts used on the **TELSTA** A-28/29D. These type nuts have been stamped to slightly deform the opening. Thus when the bolt is inserted, the nut still seeks to return to the deformed shape, locking it into place.

The threads of these type nuts are lubricated to ease installation and do not require the normal torques as listed on the prior chart. They should be torqued at the minimum figure listed below. If the nuts are removed and reinstalled, the maximum torque should be used, as the lubricant on the threads will be gone and the locking crown weakened. It is our recommendation that the nuts and bolts not be reused once removed; that new hardware of the same grade or higher be used.

This chart is also divided into Grade B and Grade C locknuts. Grade B lock nuts are used on Grade 5 bolts, and Grade C on Grade 8 bolts. All values listed are in FT/LBS (Kg/m)

TORQUE VALUES FOR LOCKING TYPE NUTS

NOM DIAM	THRDS PER IN	TYPE	GRADE B MAX	GRADE B MIN	GRADE C MAX	GRADE C MIN
1/4	20	UNC	7.0 (1.0)	5.0 (0.7)	10.5 (1.5)	7.0 (1.0)
	28	UNF	7.25 (1.0)	5.25 (0.7)	10.5 (1.5)	7.0 (1.0)
5/16	18	UNC	13.5 (1.7)	10.0 (1.4)	16.0 (2.2)	11.0 (1.5)
	24	UNF	13.5 (1.7)	10.0 (1.4)	17.0 (2.4)	12.0 (1.7)
3/8	16	UNC	19.5 (2.7)	14.5 (2.0)	29.0 (4.0)	21.0 (2.9)
	24	UNF	22.0 (3.0)	16.0 (2.2)	30.0 (4.1)	22.0 (3.0)
7/16	14	UNC	33.5 (4.6)	24.5 (3.4)	44.0 (6.1)	32.0 (4.4)
	20	UNF	33.5 (4.6)	24.5 (3.4)	45.0 (6.2)	33.0 (4.4)
1/2	13	UNC	50.0 (6.9)	37.0 (5.1)	66.0 (9.1)	49.0 (6.8)
	20	UNF	52.0 (7.1)	38.0 (5.3)	69.0 (9.5)	51.0 (7.1)
9/16	12	UNC	69.0 (9.5)	51.0 (7.1)	95.0 (13.1)	70.0 (9.7)
	18	UNF	75.0 (10.4)	55.0 (7.6)	100.0 (13.8)	75.0 (10.4)
5/8	11	UNC	95.0 (13.1)	70.0 (9.7)	122.5 (16.9)	90.0 (12.4)
	18	UNF	97.5 (13.5)	72.5 (10.0)	130.0 (18.0)	95.0 (13.1)
3/4	10	UNC	155.0 (21.4)	115.0 (15.9)	210.0 (29.0)	155.0 (21.4)
	16	UNF	165.0 (22.8)	120.0 (16.6)	210.0 (29.0)	155.0 21.4)
7/8	9	UNC	250.0 (34.6)	185.0 (25.6)	310.0 (42.9)	230.0 (31.8)
	14	UNF	270.0 (37.3)	200.0 (27.7)	310.0 (42.9)	230.0 (31.8)
1	8	UNC	380.0 (52.5)	280.0 (38.7)	460.0 (63.6)	340.0 (47.0)
	14	UNF	420.0 (58.1)	310.0 (42.9)	495.0 (68.4)	365.0 (50.5)

SPECIAL TORQUE VALUES

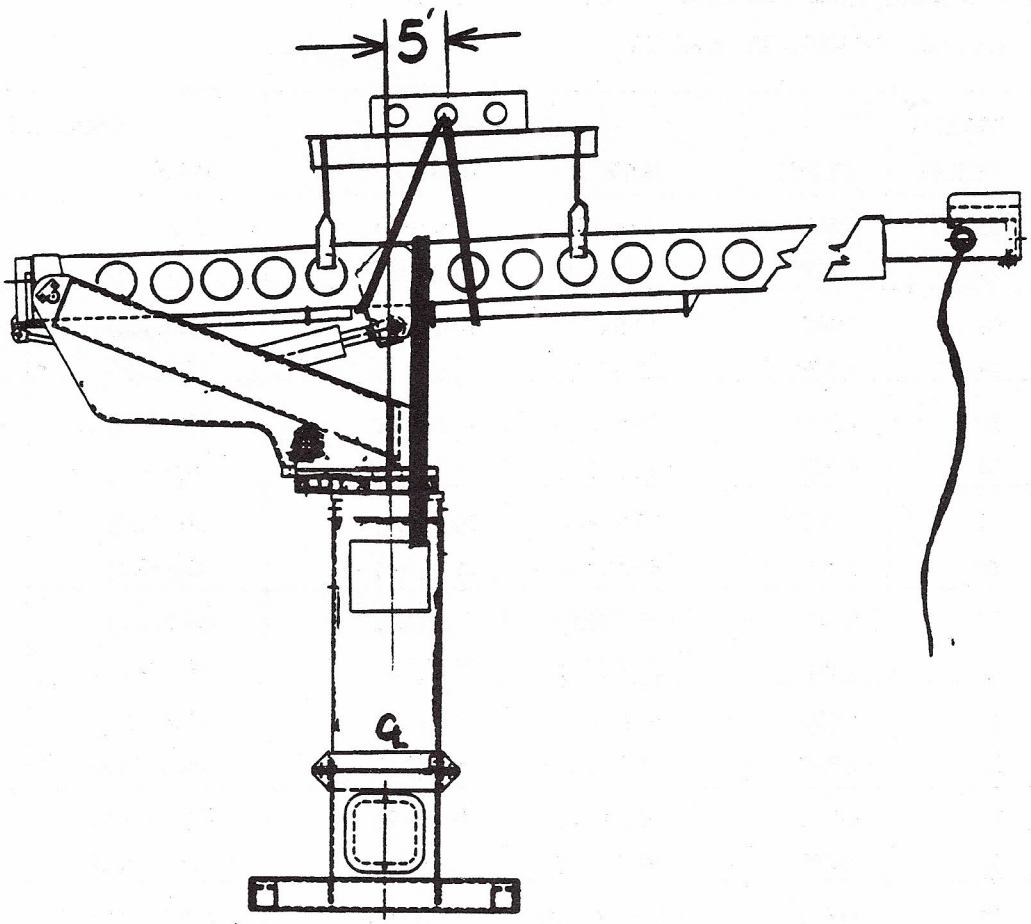
Mast mounting bolts:

A-28/29D 1/2" diameter U-bolts.....60 ft. lb. (8.3 Kg/m)

A-28/29D 5/8" diameter U-bolts.....105 ft. lb. (14.5 Kg/m)

NOTE: The mount bolts should be retorqued after the first 30 days of use.

LIFTING FIXTURE



The Lift/Mast Assembly can be safely lifted during disassembly and assembly by the use of a lifting fixture as illustrated above, or an equivalent entity, positioned per sketch. Note that the lift weight is approximately 1402 LBS (636 KG) without the basket. Any lifting apparatus used to support the A-28/9 D must be rated at a capacity that exceeds 1402 LBS (636 KG).

An additional safety sling must be positioned around the boom with a maximum of 12" (304.8 MM) slack. This sling must have a rated lifting capacity of 2500 LBS (1134 KG).

Do not attempt to remove the lift without first removing the basket. Failure to do so will result in an unbalanced load on the lifting fixture.

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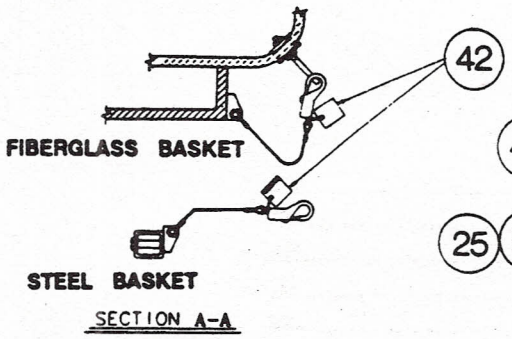
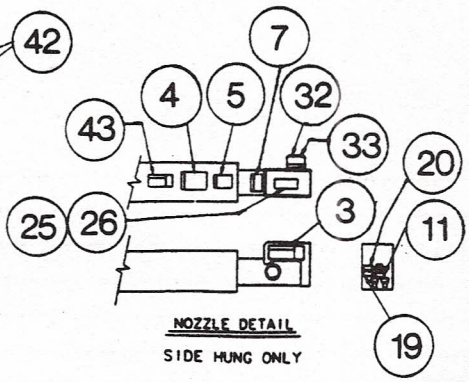
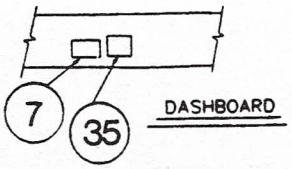
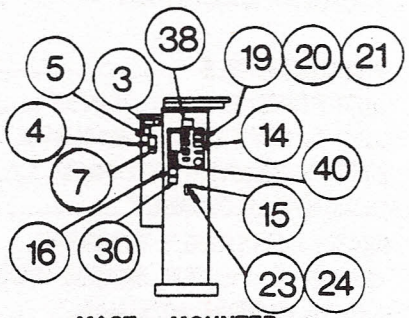
A-28D DECALS

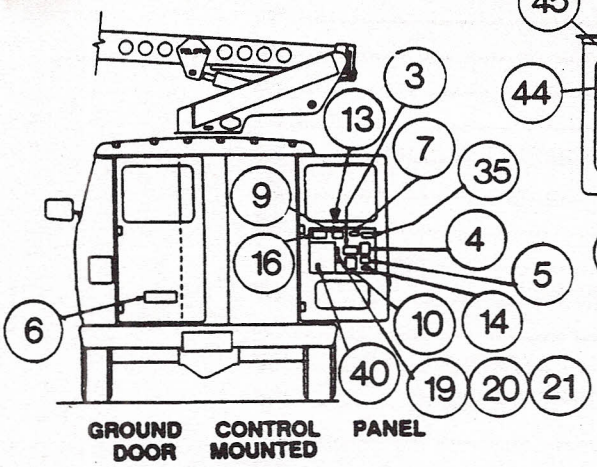




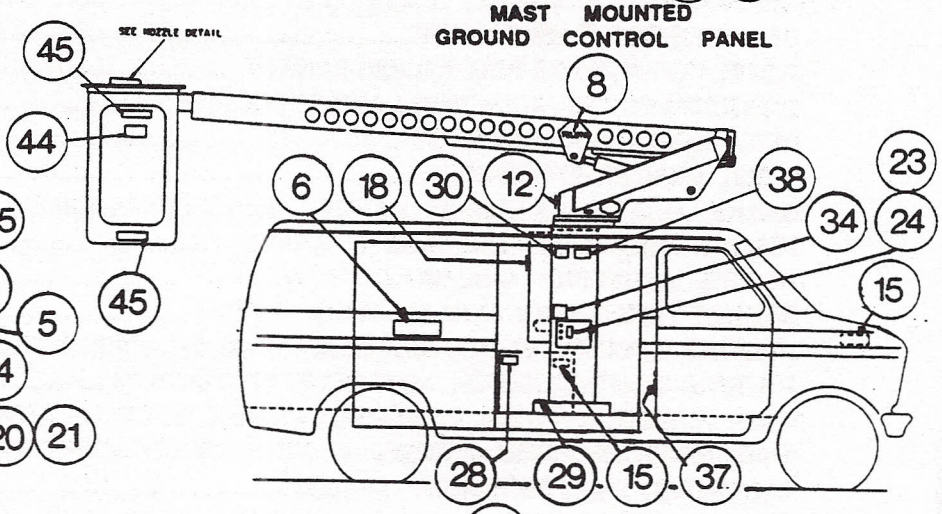


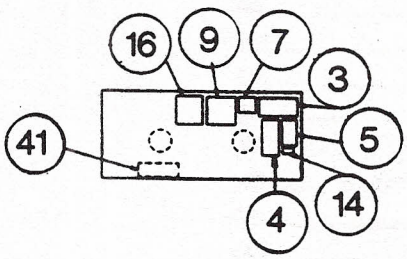


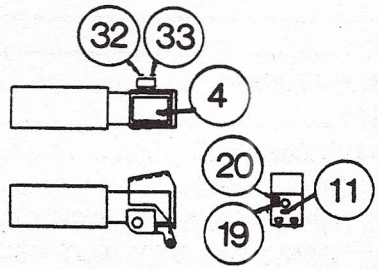
MAST MOUNTED GROUND CONTROL PANEL

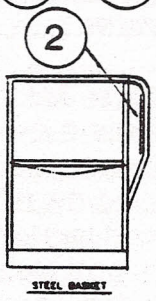


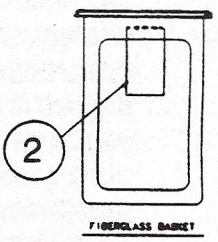
GROUND CONTROL PANEL DOOR MOUNTED



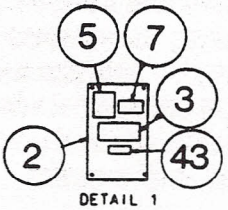


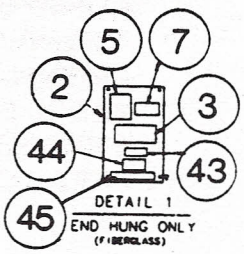


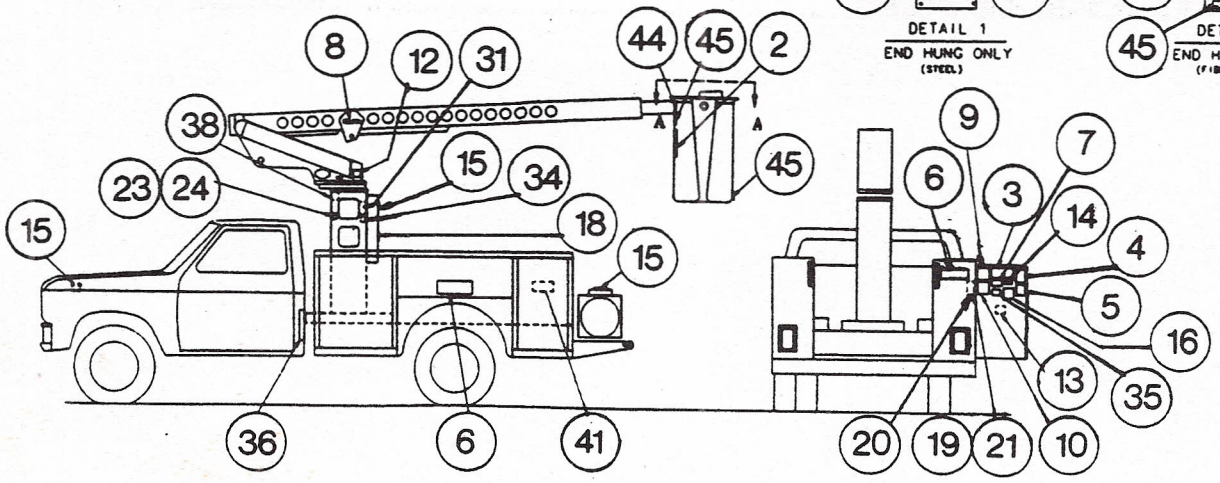




INSIDE, CENTER CABINET, CURB SIDE GROUND CONTROL PANEL

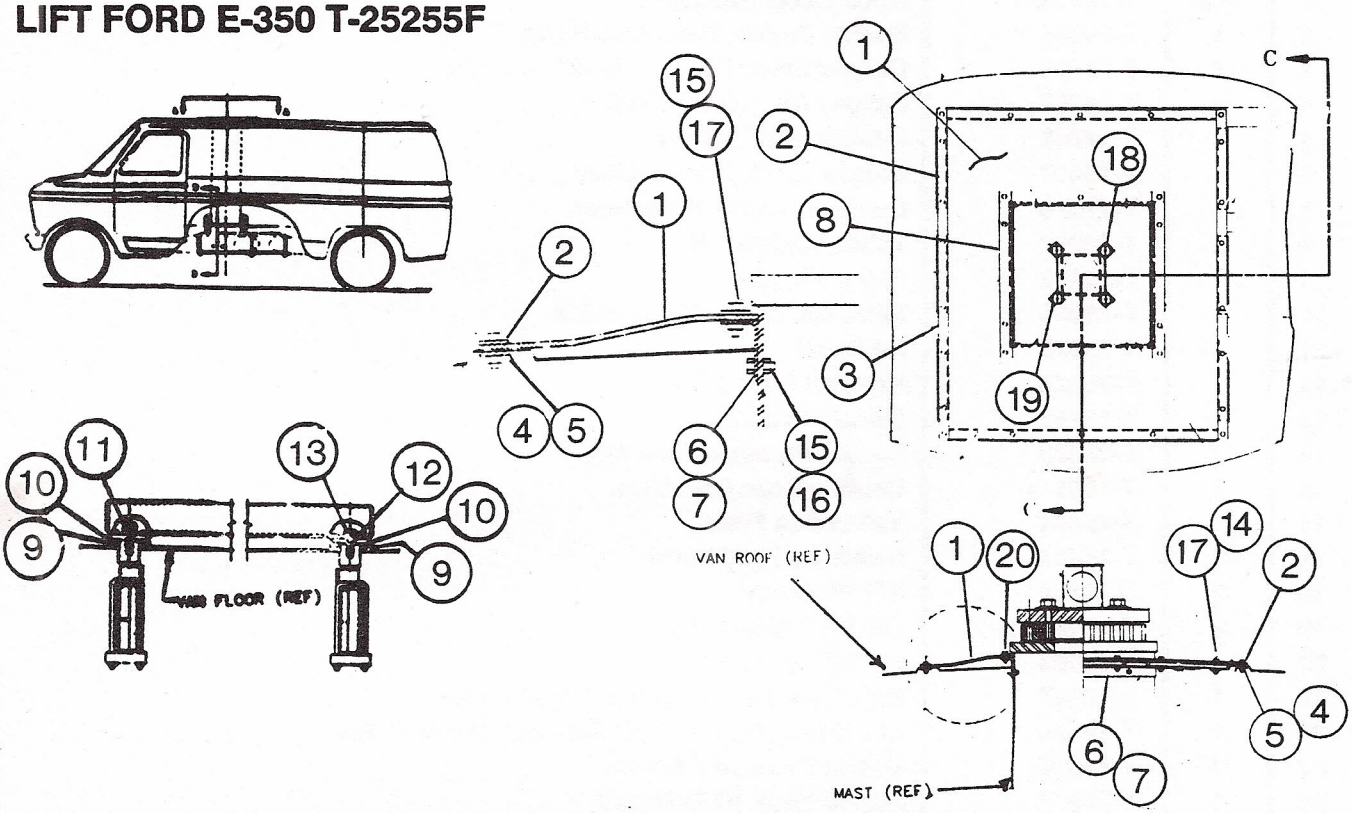






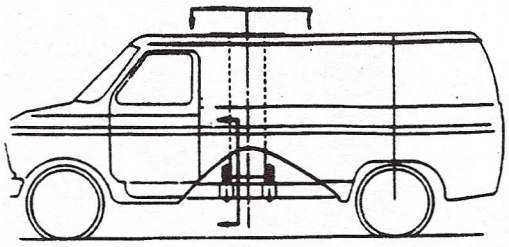
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	REF	T-76116F	A28D Decal Package
2	1	T-76661	Basket Decals Plate, End Hung
3	2	T-14799	Danger Elect. Hazard - Non Insullated
4	2	T-14797	Danger Machine Operation
5	2	T-14798	Caution Instructions
6	3	T-16427	Danger Elect. Hazard Clear
7	3	T-17076	Caution Vehicle Movement
8	2	T-62057	Telsta Electric Lift
9	1	T-20003	Patent Number
10	1	T-18028	Sales and Service Nameplate
11	1	T-10890	Air Decal
12	1	T-60024	Azimuth Gear Lube
13	1	T-17789	Manual Package
14	1	T-12878	Boom Movement Warning
15	2	T-7861	Caution Energized Ckts.
16	1	T-65464	Instruction Plate
17	1	T-25433	Hydraulic Fluid Level
18	2	T-13134	GFI Protected
19	2	T-10024	120 VAC Single Phase
20	1	T-17003	12 VDC 20 AMP
21	1	T-19547	Eng./Gen. Main Junction Panel Fuses
22	1	T-19994	Belt Driven Pump, Main Junction Panel Fuses
23	1	T-74676	Nozzle Face, AFT Mount
24	1	T-74677	Nozzle Face, FWD Mount
25	1	T-60065	Generator Housing Seals
26	1	T-60066	Oil Drain Seal
27	1	T-60067	Torque Specs.
28	1	T-60068	Torque Specs.
29	1	T-11232	220 VAC Single Phase
30	1	T-13133	Caution 120 VAC 10 AMP
31	1	T-60070	Emergency Pump
32	2	T-60071	Lift Operation
33	1	T-17599	Vehicle Compliance (Utility)
34	1	T-17642	Vehicle Compliance (Van)
35	1	T-20002	Serial Number Plate
36	1	T-63939	Basket Leveling
37	1	T-61875	Caution Instructions
38	1	T-69655	Basket Safety
39	1	T-74702	Danger Falling
40	1	T-10127F	Basket Options Decal
41	1	T-63738	350 Lb. Splicer Basket Options Decal
	1	T-5497	300 Lb. Splicer Basket Options Decal
	1	T-76336	350 Lb. Fgls/Splicer Basket Decal
	1	T-15676	300 Lb. Fgls/Splicer Basket Decal

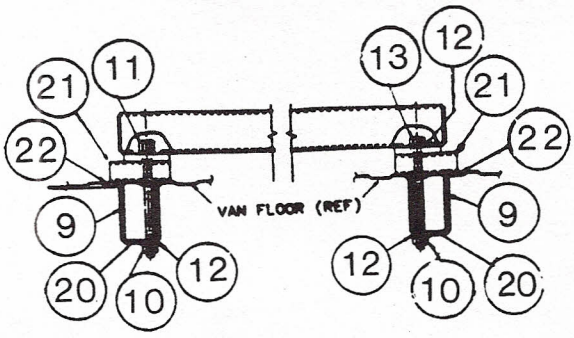
LIFT FORD E-350 T-25255F

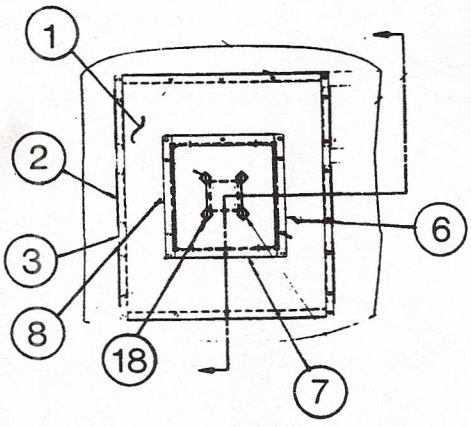


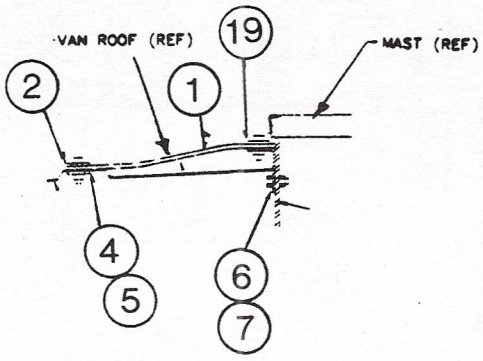
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-74401	Roof Seal - A-28D
2	1	T-19320	Weldment - Roof Seal Clamp
3	6	T-19322	Pad - Spacer
4	2	T-67730	Weldment - End Backing Plate
5	2	T-67731	Weldment - Side Backing Plate
6	2	T-74402	Weldment - Angle, End
7	2	T-74404	Weldment - Angle, Side
8	2	T-74406	Plate - End Clamp
9	4	T-63750	Washer - Rubber
10	4	T-63749	Washer - Steel
11	2	T-21098	Screw - Taper Head
12	2	T-17786	Washer - 3/4" Hardened
13	2	H-SC74-12C-16	Screw - Hex Head Cap 3/4-10 UNC x 1 3/4"
14	12	H-SC74-04C-12	Screw - Hex Head Cap 1/4-20 UNC x 1 1/4"
15	28	H-SC74-04C-07	Screw - Hex Head Cap 1/4-20 UNC x 7/8"
16	8	H-NK01-04C-R5	Nut - Keps 1/4-20 UNC
17	40	H-WT01-04A-00	Washer - Int Star 1/4 Type A
18	1	T-74277F1	Weldment - Left Hand Turret Seal
19	1	T-74277F2	Weldment - Right Hand Turret Seal
20	2	T-74407	Plate - Side Clamp

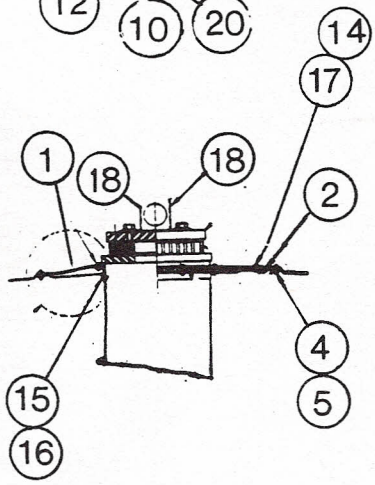
LIFT CHEVY G-30 T-63820F











ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-74401	Roof Seal
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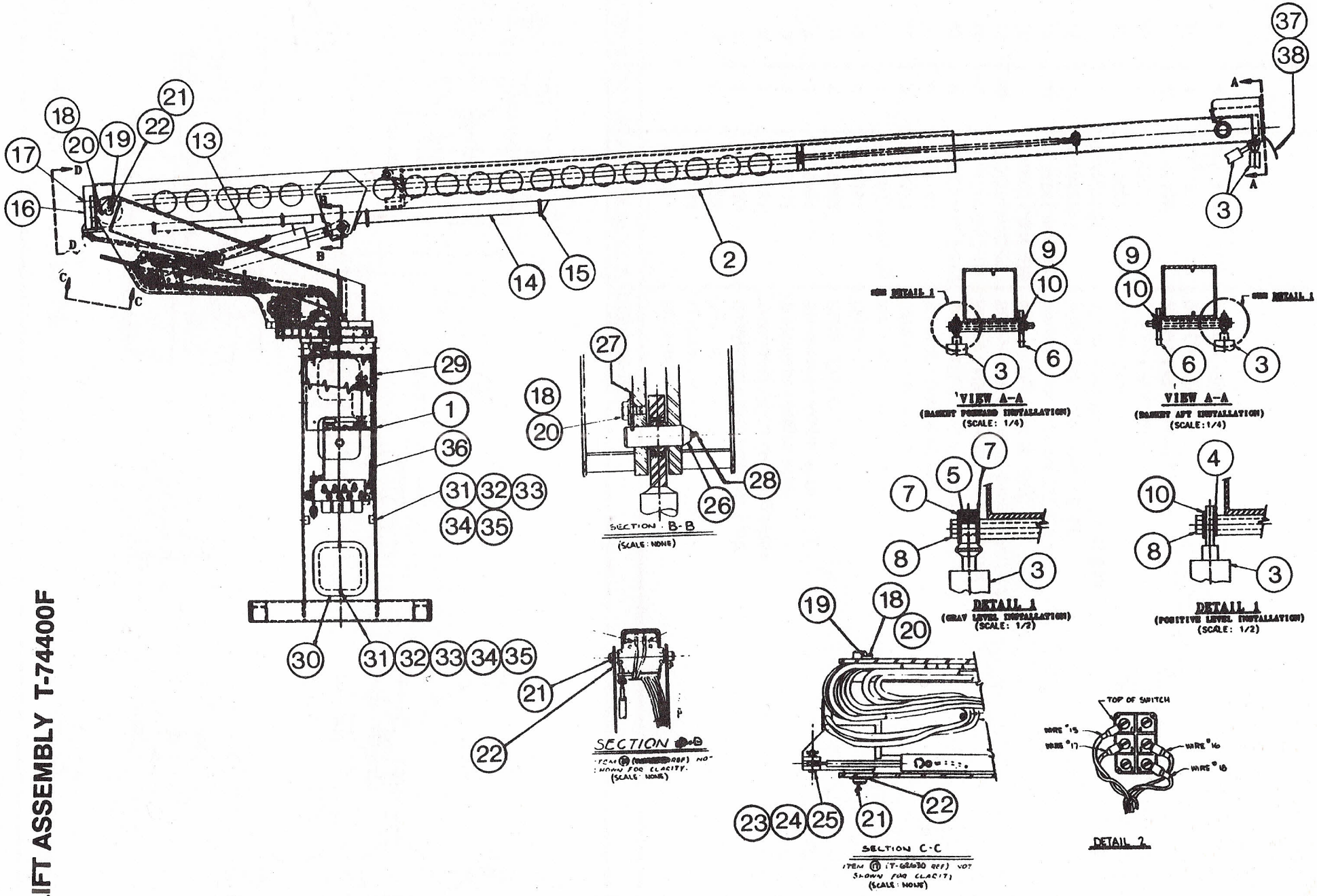
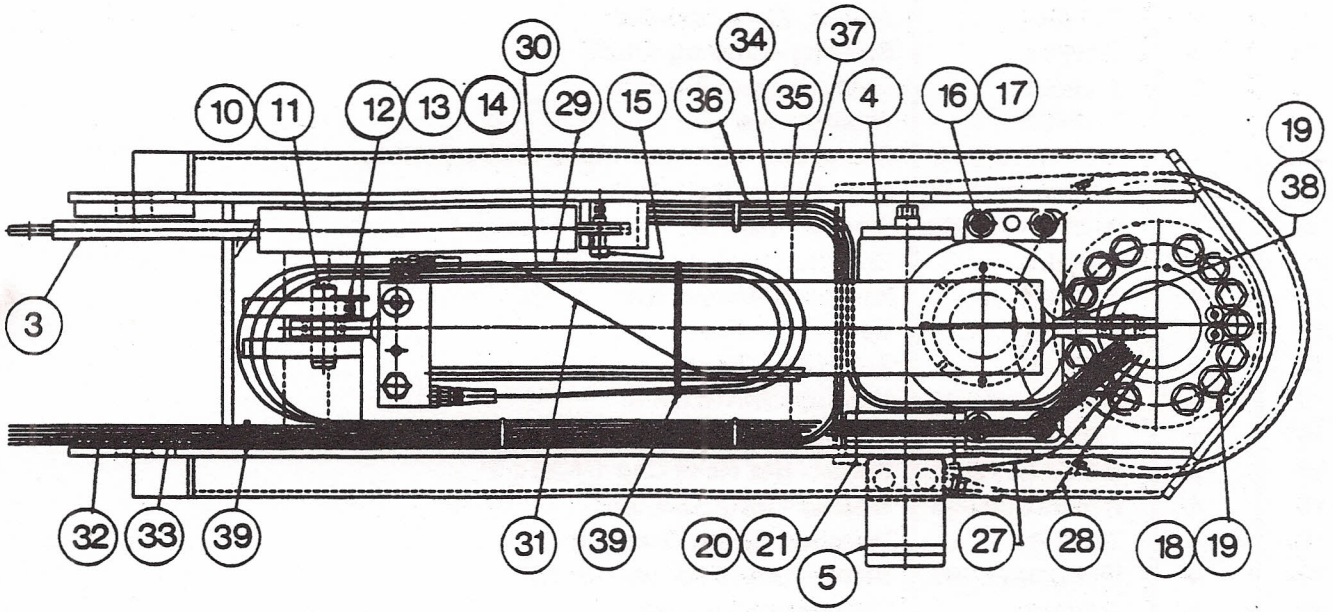
5	2	T-67731	Weldment - Side Backing Plate
6	2	T-74402	Weldment - Angle, End
7	2	T-74404	Weldment - Angle, Side
8	2	T-74406	Plate - End Clamp
9	4	T-63369	Plate - Lift Mounting
10	4	H-NRO1-12C-R5	Nut - Hex Lock 3/4-10 UNC
11	2	T-63370	Screw - Taper Head
12	6	T-17786	Washer - 3/4" Hardened
13	2	H-SC74-12C-100	Screw-HX HD CAP 3/4-10 UNC x 10"
14	12	H-SC74-04C-12	Screw - HX HD CAP 1/4-20 UNC x 1 1/4"
15	28	H-SC74-04C-07	Screw - HX HD CAP 1/4-20 UNC x 7/8"
16	8	H-NKO1-04C-R5	Nut - Keeps 1/4-20 UNC
17	40	H-WT01-04A-00	Washer - Int Star 1/4 TYPE A
18	1	T-74277F1	Weldment - L.H. Turret Seal
	1	T-74277F2	Weldment - Right Hand Turret Seal
19	2	T-74407	Plate - Side Clamp
20	4	T-63371	Shim - Lift Mount (.1046")
	4	T-63829	Shim - Lift Mount (.0598")
21	4	T-63373	Spacer - Tube
22	8	T-63830	Spacer - Floor

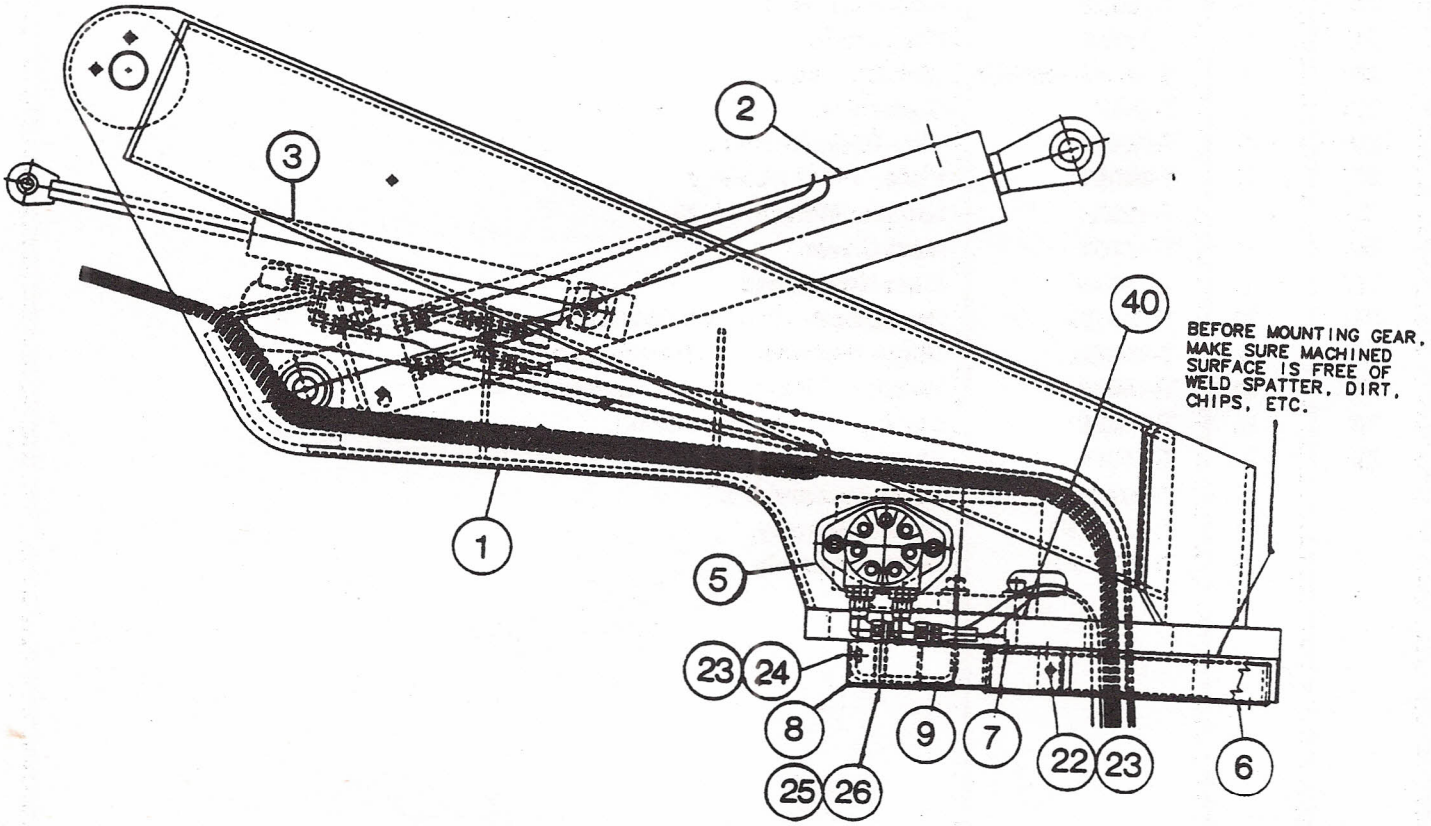
LIFT ASSEMBLY T-74400F



ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	REF	T-76303F	Mast Assembly
2	REF	T-74665F	Boom Assembly - Side Hung
	REF	T-74666	Boom Assembly - Side End Hung
3	1	T-75308	Assembly - Slave Cylinder - Side Hung
	1	T-65104	Assembly - Slave Cylinder - End Hung
	1	T-19791	Assembly - Locking Shock
4	1	T-19691	Spacer, Slave Cylinder
5	1	T-19790	Bushing - Locking Shock
6	1	T-19792	Plate, Lanyard Shackle
7	2	T-19774	Washer - Flat
8	1	H-SC74-08C-76	Screw-Cap Hex Head 1/2-13 UNC x 7.75" lg.
9	1	H-NE01-08C-R5	Nut - 1/2-13 UNC GR 5
10	1/2	H-WF01-08B-R0	Washer - Flat 1/2"
11	13	T-76294	Bolt Hex Head 5/8-11 x 2.5"
12	14	T-17787	Hardened Washer 5/8"
13	1	T-62630	Belly Pan - Rear
14	1	T-74290	Belly Pan - Front
15	4	H-NL01-06C-R5	Nut-Lock 3/8-16 GR 5
16	1	T-63338	Plate - Cover, Outer Boom Heel
17	2	H-SC74-04C-20	Screw - Hex Head Cap 1/4-20 x 2"
18	4	H-WS01-060-00	Washer - Split Lock 3/8"
19	1	T-22784	Retainer - Boom Trunnion
20	4	H-SC74-06C-06	Screw - Hex Head 3/8-16 x 3/4"
21	1	T-60011	Pin - Boom Trunnion
22	1	T-25325	Retaining Ring
23	1	T-19784	Pin, Clevis
24	1	H-WF01-08B-R0	Washer - Flat 1/2
25	1	T-X-47	Cotter Pin
26	1	T-22814	Pin - Cylinder Pivot
27	1	T-60007	Plate - Pin Retaining
28	1	T-1295	Grease Fitting - 1/4-28
29	1	T-74201	Mast Cover
30	3	T-74200	Mast Hole Cover
31	8	T-74470	Receptacle - 1/4 Turn Fastener
32	8	T-74472	Ring - Retainer 1/4 Turn Fastener
33	8	T-74469	Washer - Wear 1/4 Turn Fastener
34	8	T-74468	Spring - 1/4 Turn Fastener
35	8	T-74471	Stud - 1/4 Turn Fastener
	1	T-60132	Hose Assembly "T"
	1	T-19692F1	Hose Assembly
	1	T-19692F2	Hose Assembly

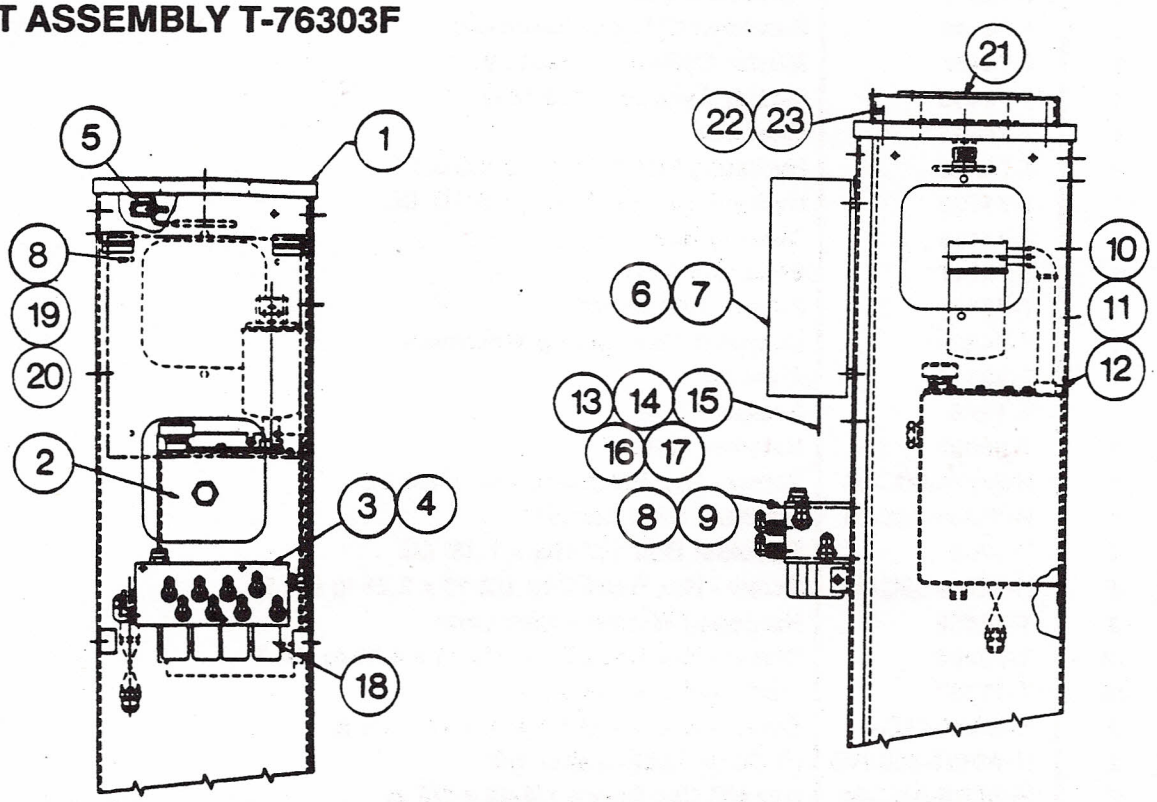
TURRET ASSEMBLY





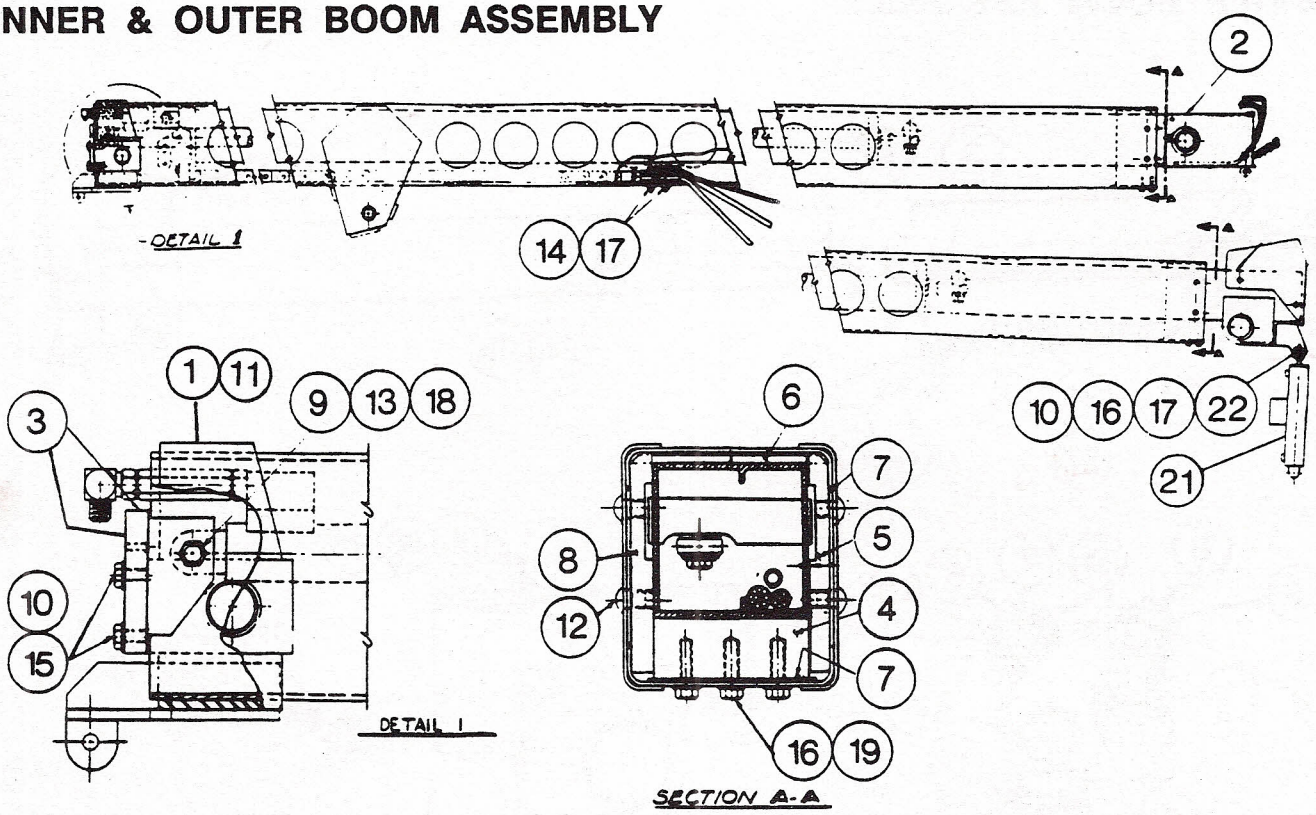
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-73847	Turret Weldment
2	1	T-74446	Elevation Cylinder Assembly
3	1	T-74447	Master Cylinder Assembly
	1	T-74448	Master Cylinder Assembly
4	1	T-74424	Gear Box
5	1	T-74502	Hydraulic Motor Assy - 2.8 CU. IN.
	1	T-74503	Hydraulic Motor Assy - 3.6 CU. IN.
6	1	T-74456	Slewing Ring
7	1	T-74217	Eccentric Ring
8	1	T-76741	Pinion Gear Guard
9	1	T-74420	Eccentric Ring Clamp Weldment
10	1	T-22814	Pivot Pin
11	1	T-1295	Grease Fitting
12	1	T-60007	Retainer Plate
13	1	H-SC74-06C-06	Screw - Hex HD 3/8-16UNC x 3/4 LG
14	1	H-WS01-060-00	Washer - SP. Lock 3/8"
15	1	T-1708	Shoulder Bolt 1/2" Dia x 1.25" LG
16	4	H-SC74-08C-22	Screw - Hex Head Cap 1/2-13 x 2.25 lg GR 5
17	4	T-74458	Hardened Washer - Carr Lane
18	13	T-76294	Screw - Hex Head Cap 5/8-11 x 2.50 lg GR 8
19	14	T-17787	Hardened Washer 5/8"
20	2	H-SA71-08C-14	Screw - Soc. Head Cap 1/2-13 x 1/5 lg
21	2	H-WH01-080-RO	HI Collar Lockwasher 1/2"
22	2	H-SC74-04C-04	Hex HD Cap Screw 1/4-20 x 1/2 lg
23	8	H-WS01-04B-R0	Lock Washer 1/4"
24	6	H-SC74-04C-06	Hex HD Cap Screw 1/4-20 x 3/4" lg
25	2	T-74459	Belleville Washer
26	2	H-SC74-06C-22	Hex HD Cap Screw 3/8-16 x 2.25 LG
27	1	T-74630	Hose Assembly "C"
28	1	T-74631	Hose Assembly "D"
29	1	T-74632	Hose Assembly "A"
30	1	T-74633	Hose Assembly "B"
31	1	T-74634	Hose Assembly "J"
32	1	T-76228	Hose Assembly "E"
33	1	T-76229	Hose Assembly "F"
34	REF	T-74637	Hose Assembly "N"
35	REF	T-74638	Hose Assembly "U"
36	1	T-74639	Hose Assembly "G"
37	1	T-74640	Hose Assembly "H"
38	1	H-SA71-01C-24	Socket HD Cap Screw 5/8-11 UNC x 2.5 LG
39	AR	T-2611	Ty Rap
40	2	T-74722	Shims
41	1	T-73935	Rotation Limit Switch Rod
42	2	H-NH01-06C-R5	Hex Nut 3/8 - 16
43	1	T-75522	"C5" Cable - MJP to Emergency Lower Solenoid
44	1	T-76742	Gear Cover
45	8	H-WF01-04A-N0	Flat Washer, 1/4"
46	2	P-07286	Speed Nut 1/4 - 20

MAST ASSEMBLY T-76303F



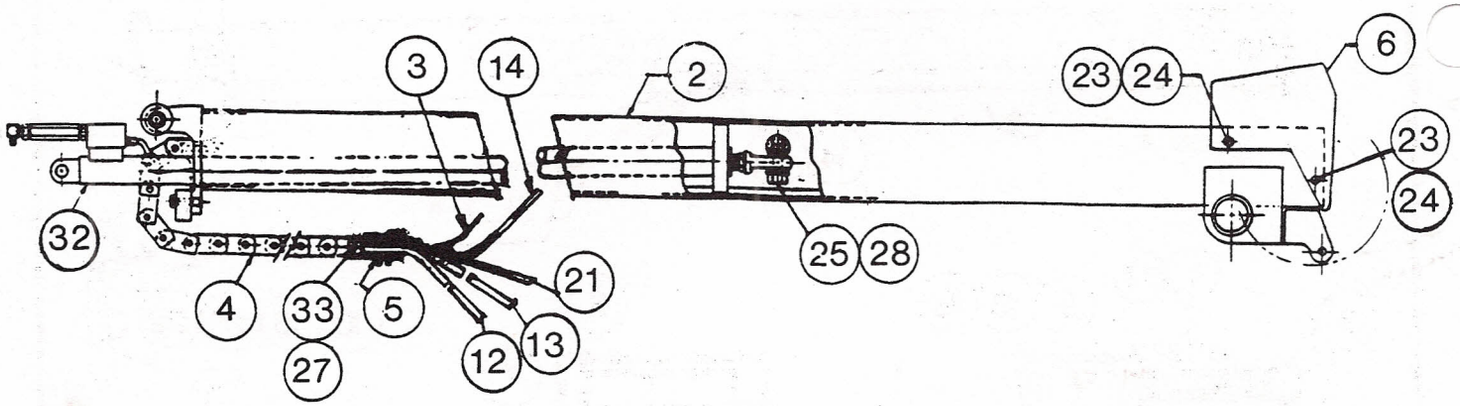
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-76297F	Mast Weldment
2	1	T-73924	Tank Assy
3	1	T-74495	Valve Manifold Assembly - Gravity Leveling
4	1	T-74782	Valve Manifold Assembly - Positive Leveling
5	1	T-76383	Rotation Switch Assembly
6	1	T-76091F1	Main Junction Panel - Positive Leveling
7	1	T-76091F2	Main Junction Panel - Gravity Leveling
8	7	H-NL01-04C-R5	Lock Nut 1/4-20 UNC
9	3	H-SA71-04C-50	Socket Head Cap Screw 1/4-20 x 5" LG
10	2	H-SC74-06C-10	Hex Head Cap Screw 3/8-16 x 1" LG GR 5
11	2	H-NL01-06C-R5	Lock Nut 3/8-16 UNC
12	4	H-WF01-06B-R0	Flat Washer, 3/8 Type B. Reg
13	REF	T-75524	"C2" Cable-MJP To Nozzle
14	REF	T-75523	"C8" Cable-MJP To Nozzle
15	REF	T-75522	"C5" Cable-MJP To Emer Low Sol
16	1	T-75521	"C4" Cable-MJP To Rot Limit Switch
17	1	T-75520	"C22" Cable-MJP To Manifold
18	1	T-76147F1	Manifold Grd Assembly - Positive Leveling
	1	T-76147F2	Manifold Grd Assembly- Gravity Leveling
19	2	T-76802	Cable Clamp
20	4	H-WF01-04A-R0	Flat Washer 1/4 Regular A
21	1	T-74456	Slewing Ring
22	8	T-76294	Hex Head Bolt 5/8 - 11 UNC x 2.5 Long Grade 8
23	8	T-17787	Hardened Washer 5/8

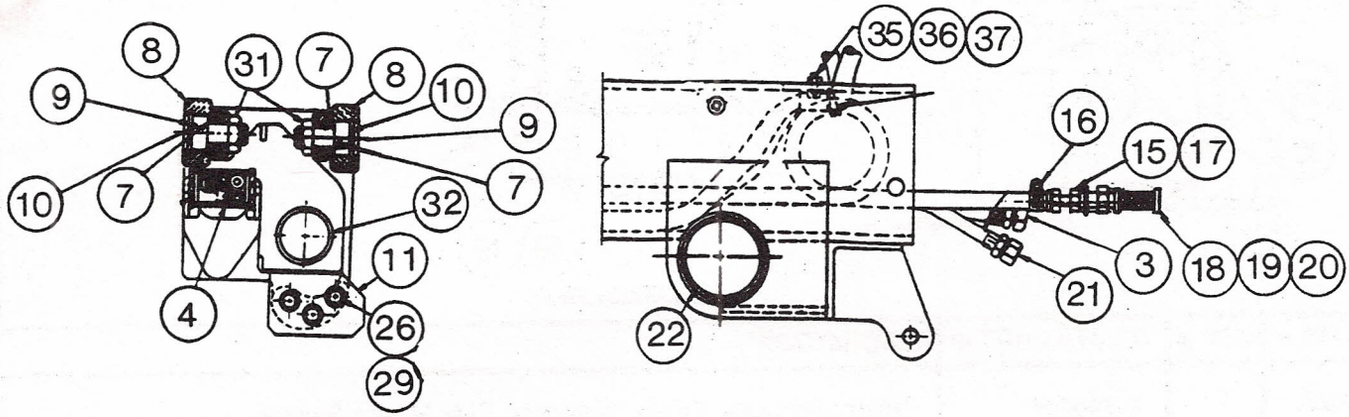
INNER & OUTER BOOM ASSEMBLY

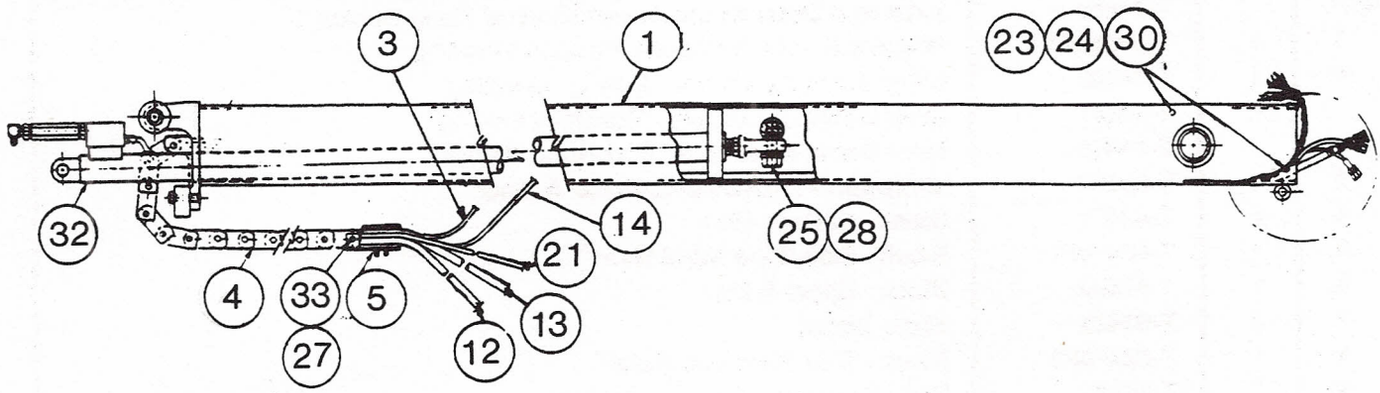


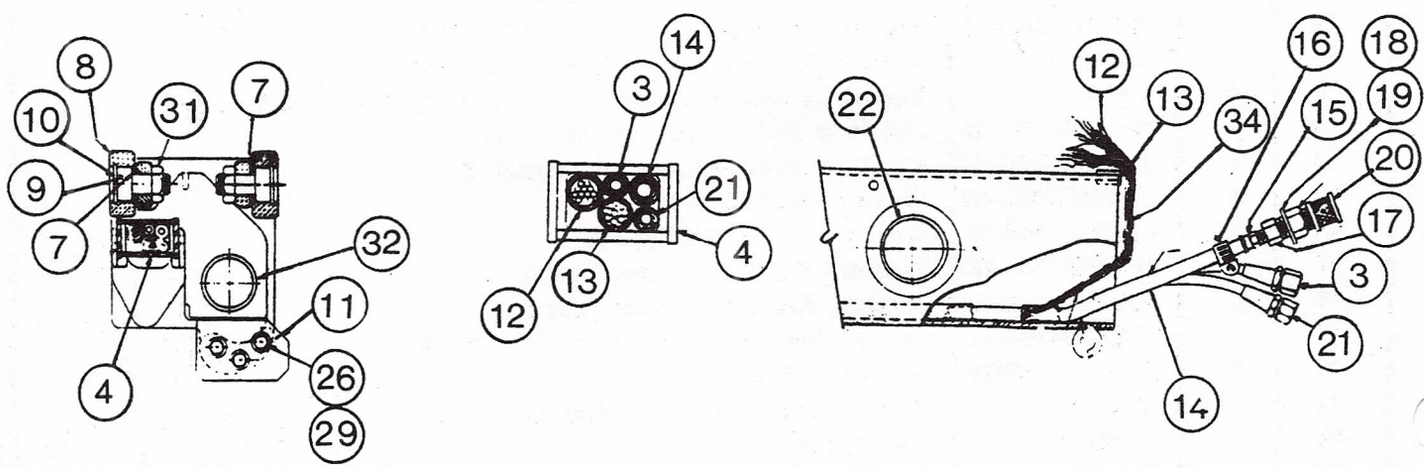
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
REF		T-74665F	Inner and Outer Boom Assmebly, Side Mount Basket
REF		T-74666	Inner and Outer Boom Assembly, End Hung Basket
1	1	T-24852F1-P	Weldment - Outer Boom, Positive Leveling
2	1	T-74662	Inner Boom Assembly - Gravity Leveling
		T-74661	Inner Boom Assembly - Positive Leveling
		T-74663	Inner Boom Assembly - End Hung Basket
3	1	T-63337	Weldment - Extension Cylinder Anchor
4	1	T-62471	Block - Bottom Slide
5	1	T-62470F1	Block - Side Slide Right Hand
6	1	T-62469	Block - Upper Slide
7	4	T-62473	Shim, Boom
8	1	T-62470F2	Block - Side Slide Left Hand
9	1	T-25061	Bolt - Extension Cylinder Anchor
10	4	H-SC74-08C-16	Screw - Hex Head Cap 1/2-13 UNC x 1 3/4
11	1	T-24852F2-P	Weldment - Outer Boom, Gravety Leveling
12	4	T-65483	Socket Cap Screw Button Head 4140 Alloy 3/8-16 x 5/8
13	1	H-NE01-12C-R5	Nut-Esna 3/4-10 UNC Regular Grade 5
14	2	H-NE01-O4C-R5	Nut-Esna1/4-20 UNC Regular Grade 5
15	4	H-WS01-08C-00	Washer - Split Lock 1/2
16	3	H-WT01-06A-00	Washer - Int Star 3/8 Type A
17	2	H-WF01-04A-RO	Washer - Flat 1/4" Regular Type A
18	2	H-WF01-12B-R0	Washer - Flat 3/4" Regular Type B
19	3	H-SC74-06C-12	Screw - Hex Head Cap 3/8-16 UNC x 1 1/4"
20	3	H-WF01-06BR0	Washer - flat 3/8"
21		T-65104	Slave Cylinder Assembly, End Hung Basket
22		T-19784	Pin - Clevis
23		T-X-46	Pin - Cotter 1/8" x 1"
		H-WF01-08B-RO	Washer - Flat 1/2 Type B

INNER BOOM ASSEMBLY



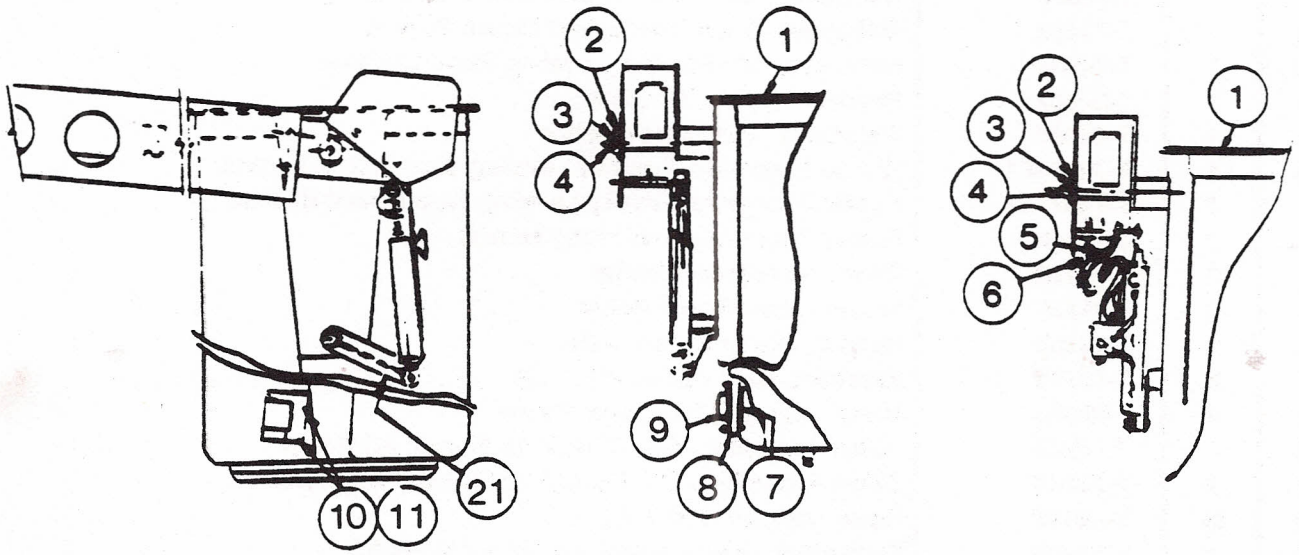




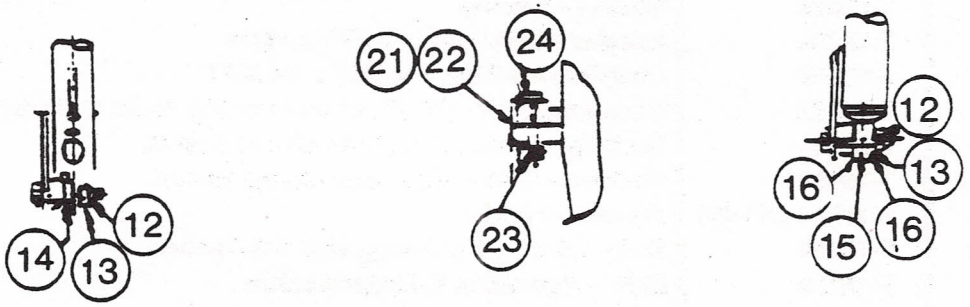


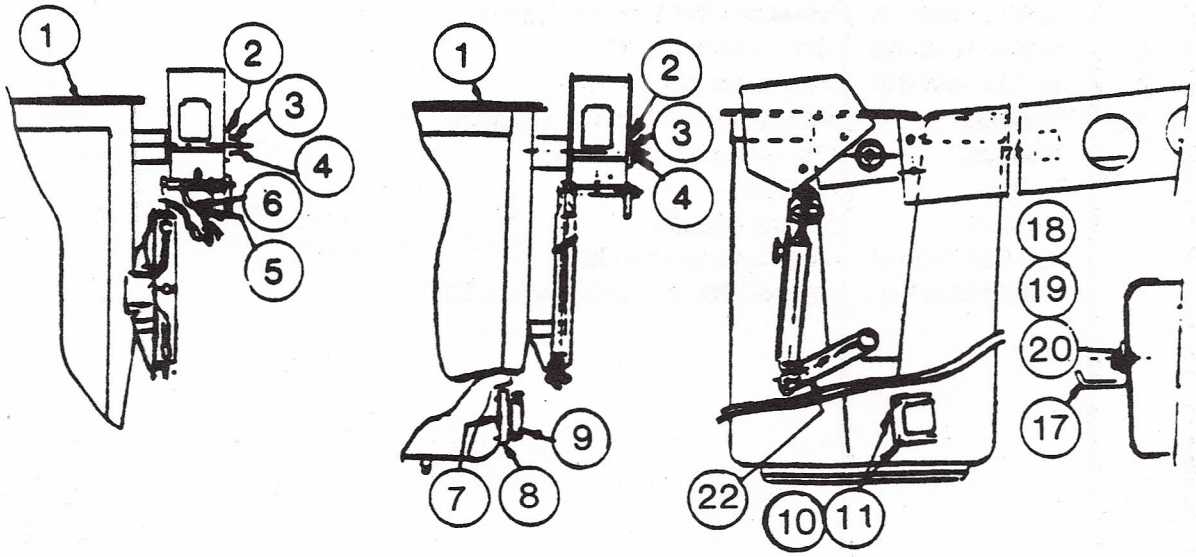
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
REF		T-74661	Inner Boom Assembly - Gravity Leveling Side Mount Basket
REF		T-74662	Inner Boom Assembly - Positive Leveling Side Mount Basket
REF		T-74663	Inner Boom Assembly - End Hung Basket
1	1	T-74658	Weldment - Inner Boom, Side Mount Basket
2		T-71462	Weldment - Inner Boom, End Mount Basket
3	1	T-74638	Hose Assy "U" (Positive Leveling Slave Cylinder)
4	1	T-24982	Retainer - Cable, Plastitrac
5	1	T-25064	Weldment - Plastitrac Anchor
6	1	T-74671F1	Nozzle Assembly, Positive Leveling Side Mount Basket
	1	T-74671F2	Nozzle Assembly, Gravity Leveling Side Mount Basket
	1	T-76149	Nozzle Assembly, End Hung Basket
7	2	T-19133	Shim - Inner Boom Roller
8	2	T-19130	Wheel - Inner Boom Roller
9	2	T-19132	Bearing - Inner Boom Roller
10	2	T-19131	Retaining Ring - Basic Int. 1 1/8
11	1	T-62483	Block - Lower Slide, Inner Boom
12	1	T-75523	Cable Assembly - C8, SSMJP To Nozzle AC Power
13	1	T-75524	Cable Assembly - C2, SSMJP To Nozzle Functions
14	50'	T-12498	Hose - Air, 1/4" 200 P.S.I.
15	1	T-12499	Connector - Barb Swivel, 1/4 HS x 1/4 FFI 37
16	1	T-1901	Clamp - Hose
17	1	T-1194	Connector - Male, 1/4 MPT x 1/4 FL 37 - STL
18	1	T-16063	Washer - Sealing
19	1	T-12770	Adapter - Bulkhead, 1/4 FPT x 15/16
20	1	T-10508	Coupling - Q Disc, 1/4 SKT x 1/4 MPT
21	1	T-74637	Hose Assembly - "N" (Positive Leveling Slave Cylinder)
22	2	T-2294	Bushing - Basket Axle, Side Mount Basket
	2	T-76402	Bushing - Basket Axle, End Mount Basket
23	4	H-WF01-04A-NO	Washer - Flat 1/4
24	2	T-76561	Bolt - 1/4-20 x 5 3/4" long with 1/2 Thread
25	1	T-19229	Bolt - Extension Cylinder Anchor
26	3	H-SC74-06C-40	Screw - Hex Head Cap 3/8-16 UNC x 4"
27	2	T-19927	E Ring
28	1	H-WS01-100-00	Washer - Split Lock 5/8
29	3	H-WT01-06A-00	Washer - INT Star 3/8 Type A
30	2	H-NA01-04C-R5	Nut - Acorn 1/4-20
31	2	H-NJ01-10F-R5	Nut - Jam 5/8-18 UNF
32	1	T-24850	Assembly - Extension Cylinder
33	2	T-60005	Pin - Plastitrac Mounting
34	7	T-2090	Ty-Rap
35	1	T-22425	Clamp - Cable
36	1	H-NK01-0KF-R5	Nut Keps 10 - 32 CZ
37	1	H-SP83-0KF-R6	Screw - Ph 10 - 32 X 3/4" LG CZ

SQUARE FIBERGLAS BASKET



AFT MOUNT

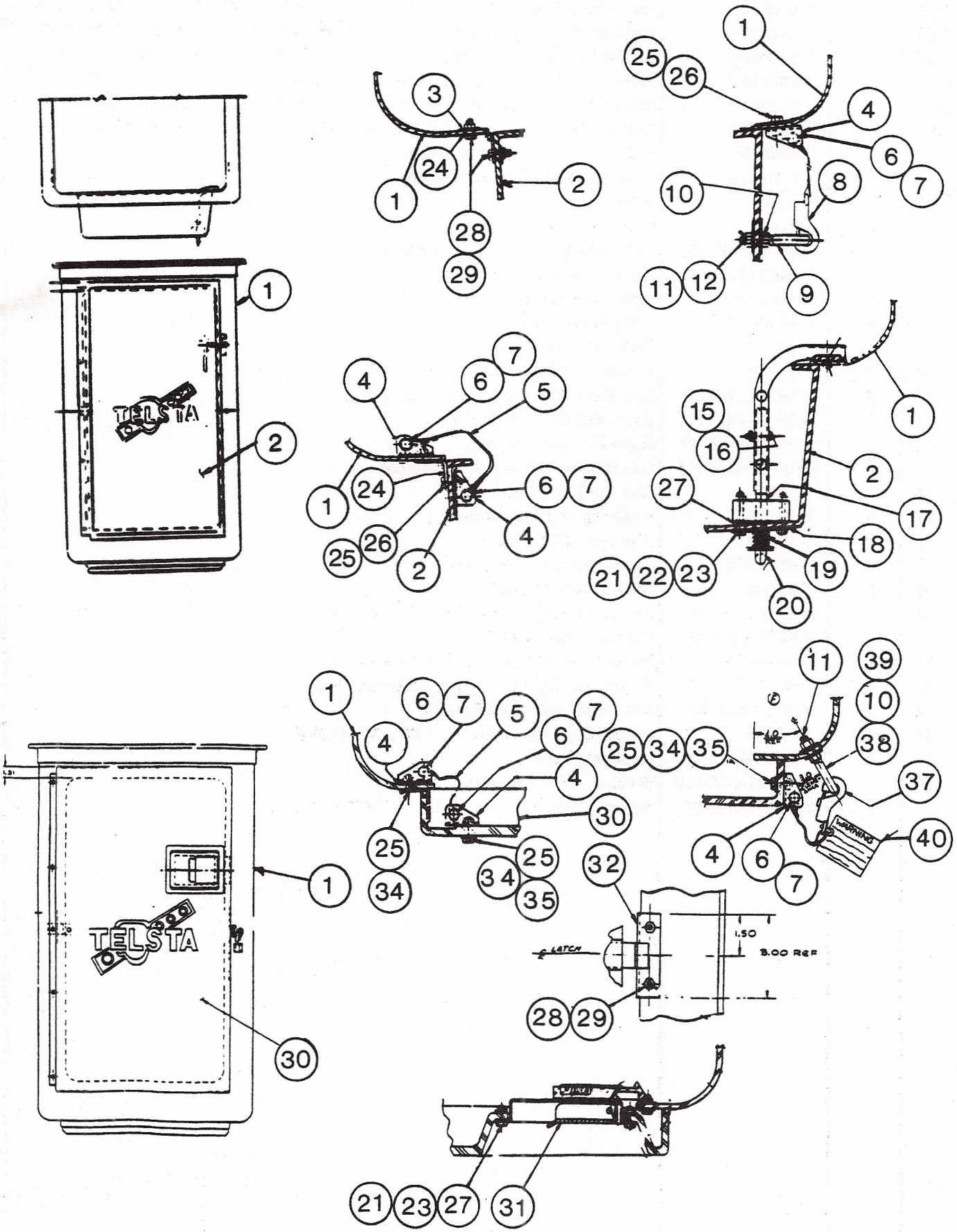




FORWARD MOUNT

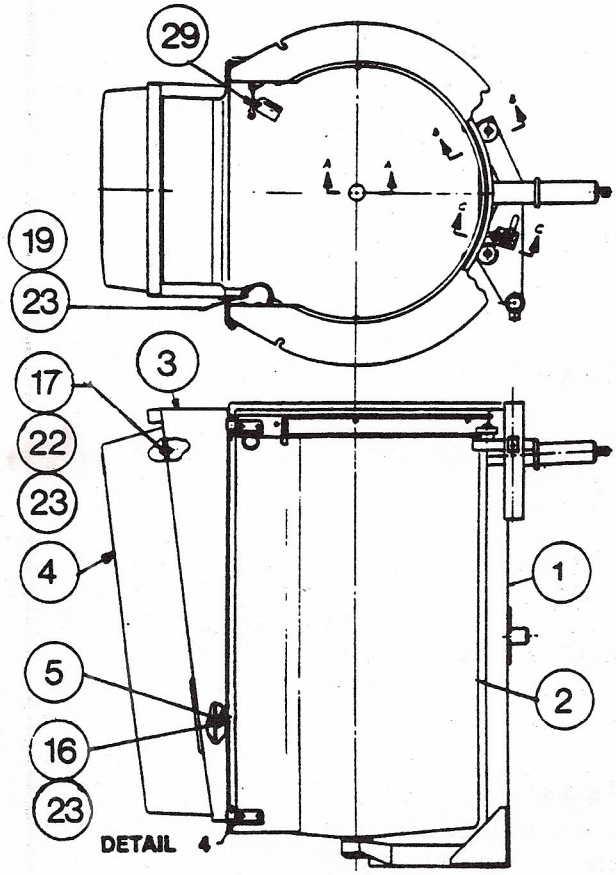
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
REF		T-64888F1	Assembly Fiberglas Basket, Aft Mount Positive Leveling Side Entry
REF		T-64888F2	Assembly Fiberglas Basket, Aft Mount Positive Leveling Front Entry
REF		T-64888F3	Assembly Fiberglas Basket, Forward Mount Positive Leveling Side Entry
REF		T-64888F4	Assembly Fiberglas Basket, Forward Mount Positive Leveling Front Entry
REF		T-64888F5	Assembly Fiberglas Basket, Aft Mount Gravity Leveling Side Entry
REF		T-64888F6	Assembly Fiberglas Basket, Aft Mount Gravity Leveling Front Entry
REF		T-64888F7	Assembly Fiberglas Basket, Forward Mount Gravity Leveling Side Entry
REF		T-64888F8	Assembly Fiberglas Basket, Forward Mount Gravity Leveling Front Entry
1	1	T-60686F1	Fiberglass Basket Side Entry
	1	T-60686F2	Fiberglass Basket Front Entry
2	1	T-5494	Retainer
3	1	T-X-47	Cotter Pin
4	1	H-NC01-12F-R5	Nut-Castle 3/4 - 16 UNF Grade 5
5	1	T-19692F1	Hose Assembly "C"
6	1	T-19692F2	Hose Assembly "D"
7	1	T-19307	Plate-Back-up
8	1	T-19625	Plate-Spacer
9	1	T-25070	Basket Catch Assembly
10	2	H-SC74-06C-10	Hex Head Cap Screw 3/8 - 16 UNC x 1
11	2	H-NE01-06C-R5	Esna Nut 3/8 - 16 UNC x 1
12	1	H-NE01-08C-R5	Esna Nut 1/2 - 13 UNC
13	1	H-WF01-08B-R0	Flat Washer 1/2" Type B Regular
14	1	T-19691	Spacer-Slave Cylinder
15	1	T-19790	Bushing-Locking Shock
16	2	T-19774	Washer-12GA Flat
17	1	T-63385F2	Hook-Fiberglass Basket
18	2	T-22759	Nutsert-3/8-16 UNC
19	2	H-SC74-06C-04	Hex Head Cap Screw 3/8 - 16 UNC x 1/2
20	2	H-WS01-060-00	Washer - Sp. Lock 3/8
21	1	T-60704F1	Weldment-Cylinder Anchor Basket Aft
22	1	T-60704F2	Weldment-Cylinder Anchor Basket Fwd.
23	1	HNLO1-08F-R8	Nut Lock, 1/2 - 20 CZ Reg 8
24	1	T-76638	Screw Cap Hex Head, 1/2 - 20 x 3 1/4 GR8
25	1	T-68104F1	Backing Plate
26	1	H-WF01-06A-W0	Washer - Flat 3/8 wide
27	1	H-SC74-06C-06	Screw - Hex Head Cap 3/8 - 16 UNC x 3/4 Long

DOOR, FOR SQUARE FIBERGLASS BASKET

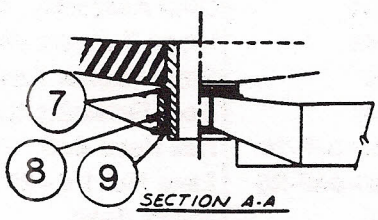


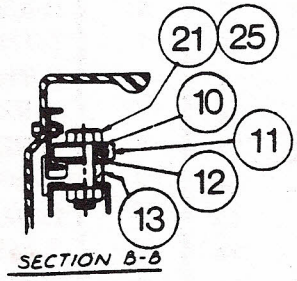
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	REF	T-64888F	Fiberglass Basket
2	1	T-16304	Door Assembly, 4" Deep
3	1	T-16946	Hinge Support Strip
4	3	T-7746	Strap Anchor Basket
5	1	T-17147	Door Retaining Strap
6	3	H-SH83-04F-16	Hex Head Bolt, 1/4 - 28 NF
7	3	H-NE01-04F-R5	Esna Nut 1/4 - 28 NF
8	1	T-7758	Safety Snap
9	1	H-BI62-05C-11	Eye Bolt 5/16 - 18 NC x 1-1/8
10	1	H-NH01-05C-R5	Hex Head Nut 5/16 - 18 NC
11	1	H-NE01-05C-R5	Esna Nut 5/16 - 18 NC
12	2	H-WF01-05A-00	Flat Washer
13	2	H-SP83-0HC-02	Pan Head Screw #8 - 32 NC x 1/4
14	1	T-16308	Plate, Latel Striker
15	1	H-SB83-0FC-07	Screw BN HO #6-32 NC x 7/8
16	1	H-NE01-0FC-R5	Esna Nut #6-32 NC
17	1	T-16307	Mount, Latch Rear
18	1	T-17142	Mount, Latch Front
19	1	T-16316	Spring
20	1	T-16309	Latch
21	3	H-SH-83-0KC-12	Hex Head Cap Screw #10-24 NC x 1 1/4
22	3	H-WU01-0KA-00	Ext. Star Washer #10
23	3	H-NH01-0KC-R5	Hex Head Nut #10-24 NC
24	1	T-16305	Hinge
25	3	H-SH83-04F-06	Hex Head Screw 1/4 - 28 NF x 3/4
26	3	H-NE01-04F-R5	Esna Nut 1/4 - 28 NF
27	3	H-WF01-0KA-R0	Washers #10 Inside Diameter
28	10	H-SH83-0HC-06	Hex Head Screw #8-32 NC x 3/4
29	10	H-NE01-0HC-R5	Esna Nut #8-32 NC
30	1	T-63239	Assembly - Flat Door, Right
N/S		T-64455	Assembly - Flat Door, Left
31	1	T-1505	Latch - Door
32	1	T-62269	Striker - Channel
33	1	T-16945	Strip - Hinge Back up
34	7	H-NE01-04F-R5	Nut - Locking 1/4 - 28 NF
35	7	H-WF01-04B-R0	Washer Flat 1/4
36	3	H-SH83-04F-16	Screw - HH 1/4 - 28 NF x 1 3/4 LF
37	1	T-7758	Strap, Safety Hook
38	1	T-130598	Bolt, Eye 5/16 - 18 UNC x 1 LG
39	2	H-WF01-05A-R0	Washer Flat 5/16
40	1	T69655	Warning Tag Door With S - Hook

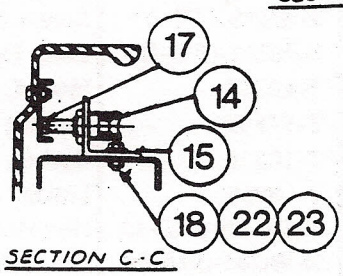
SPLICER'S ROUND ROTATING BASKET T-62141F

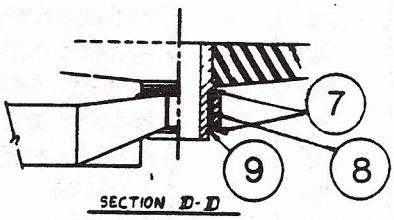


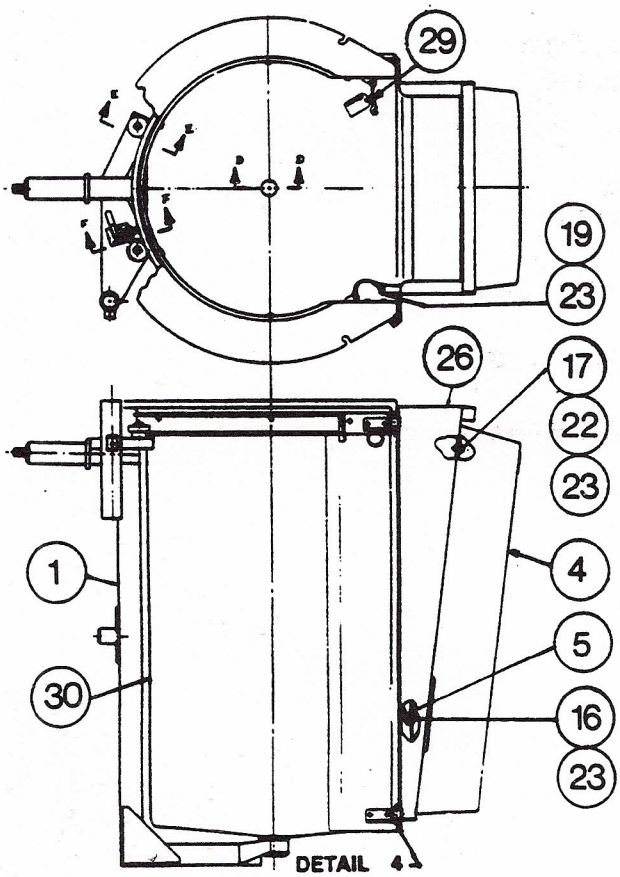
T-62141F1 - RIGHT HAND



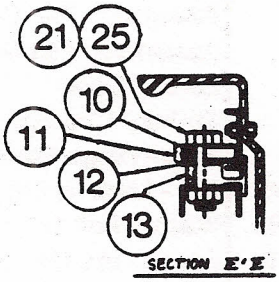


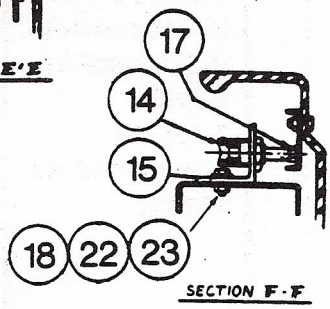


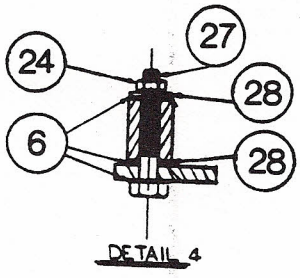




T-62141F2 - LEFT HAND

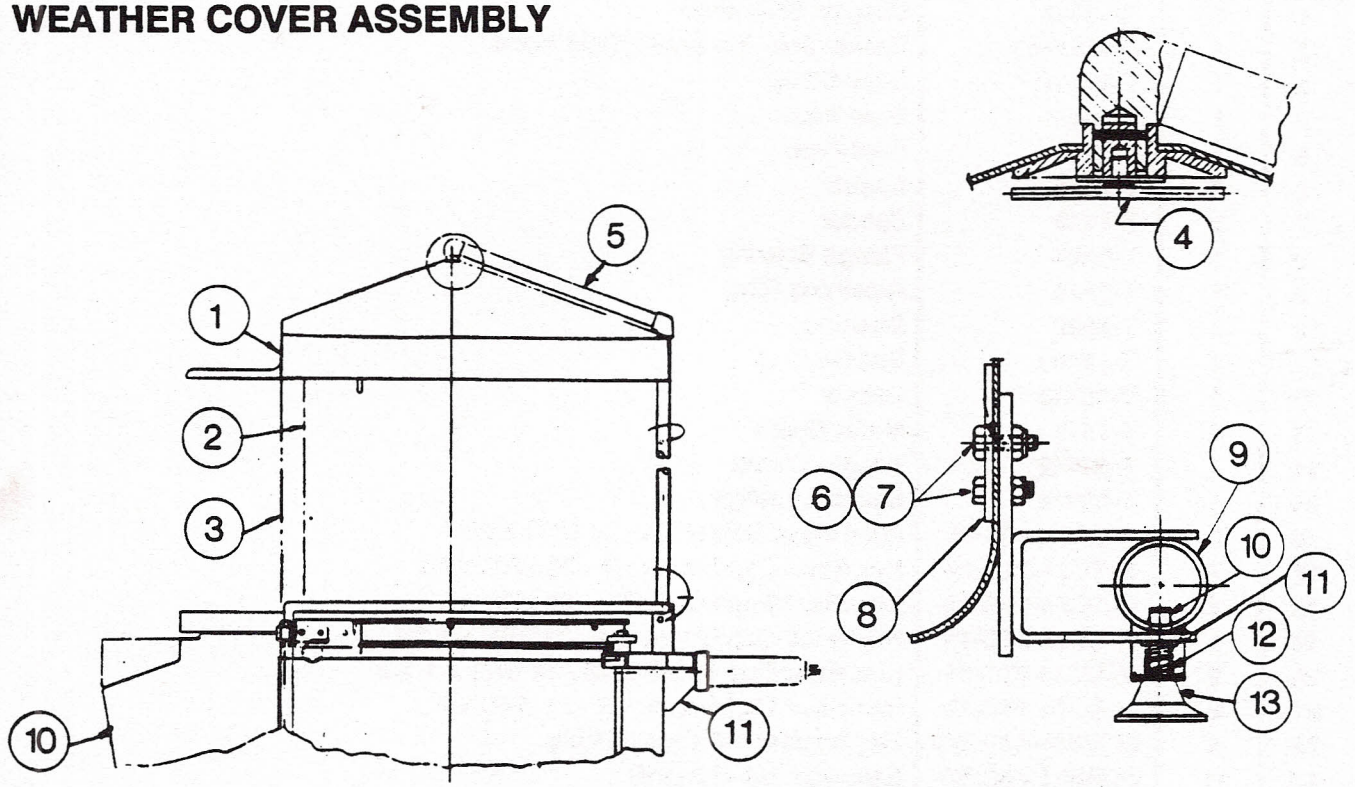






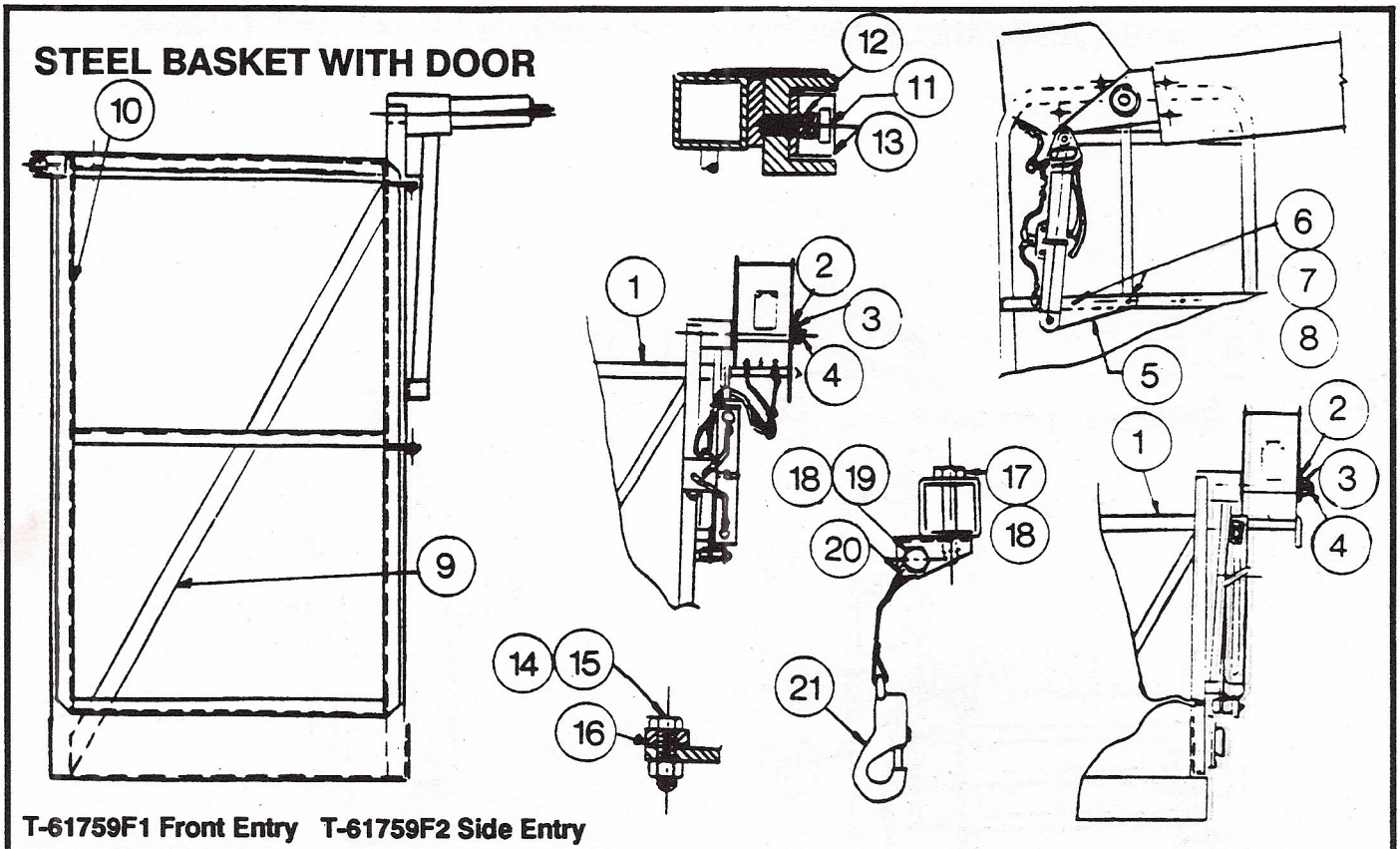
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-62012	Support Weldment
2	1	T-11687F1	Basket Sub-Assembly Right Hand
3	1	T-69641	Door Offset
4	1	T-14834	Door Panel
5	1	T-7915	Foot Rest
6	4	T-7065	Spacer
7	2	T-6973	Spacer
8	1	T-2294	Flange Bearing
9	1	T-2715	Retaining Ring
10	2	T-7922	Bushing
11	2	T-18908	Ball Bearing
12	2	T-16333	Spacer
13	2	T-7571	Roller Guide
14	1	T-62142	Toggle Clamp
15	1	T-62018	Mounting Angle
16	2	H-SA83-04C-06	Allen Head Screw 1/4 - 20 UNC x 3/4
17	7	H-SC74-04C-04	Hex Head Cap Screw 1/4 - 20 UNC x 1/2
18	2	H-SC74-04C-06	Hex Head Cap Screw 1/4 - 20 UNC x 3/4
19	1	H-SC74-04C-14	Hex Head Cap Screw 1/4 - 20 UNC x 1 1/2
20	2	H-SC74-05C-14	Hex Head Cap Screw 5/16 - 18 UNC x 1 1/2
21	2	H-SC74-10C-20	Hex Head Cap Screw 5/8 - 11 UNC x 2
22	8	H-WF01-04B-W0	Flat Washer 1/4 Type B Wide
23	11	H-NE01-04C-R5	Esna Nut 1/4 - 20 UNC
24	2	H-NE01-05C-R5	Esna Nut 5/16 - 18 UNC
25	2	H-NE01-10C-R5	Esna Nut 5/8 - 11 UNC
26	1	T-76369	Offset Door Weldment, Left Hand Hinge
27	2	H-SC74-05C-20	Hex Head Cap Screw 5/16 - 18 UNC x 2
28	8	H-WF01-05A-R0	Flat Washer 5/16
29	1	T-69655	Warning Tag with S-Hook
30	1	T-11687F2	Basket Sub-Assembly Left Hand
31	1	T-14773D	Instructions Splicers Basket Door Assembly

WEATHER COVER ASSEMBLY



ITEM #	QTY #	TELSTA PART #	DESCRIPTION
REF		T-14723	Weather Cover Assembly - Rotating Splicer's Basket
REF		T-16339	Weather Cover Assembly - Square Fiber Glass Basket
1	1	T-14537	Weather Cover Hood, Rotating Splicer's Basket
		T-16340	Weather Cover Hood, Square Fiber Glass Basket
2	1	T-900667	Canopy Side Cover, Rotating Splicer's Basket
		T-62088	Canopy Side Cover, Square Fiber Glass Basket
3	1	T-900668	Canopy Front Cover
4	1	T-16431	Lock Weldment - Weather Cover
5	1	T-900669	Holder - Umbrella
6	1	T-65950	Canopy Latch Plunger
7	1	T-65872	Retaining Ring 3/8 "E"
8	1	T-65873	Spring - Compression .48 Outside Diameter x 88 Long
9	1	T-65355	Push-Pull Knob
10	REF	T-11336	Splicer Basket Door Assembly
11	REF	T-14117	Splicer Basket Assembly
12	3	H-SH83-06C-10	Hex Head Screw 3/8 - 16 x 1
13	3	H-NE01-06C-R5	Esna Nut 3/8 - 16 Regular Grade 5
14	1	T-16345	Mounting Plate 24 x 24
15	1	T-16344	Mounting Bracket Weldment 24 x 24

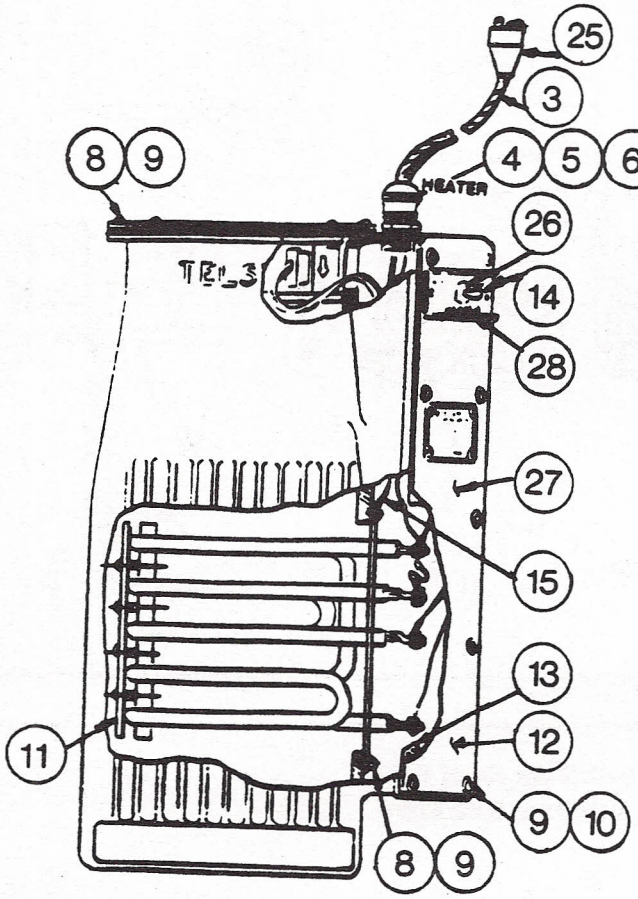
STEEL BASKET WITH DOOR

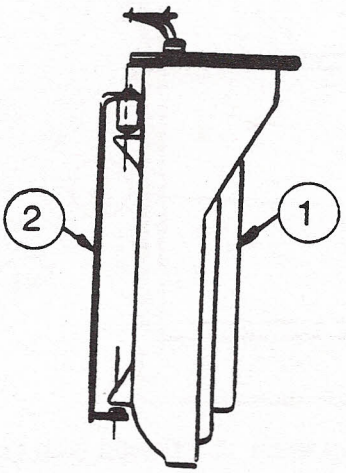


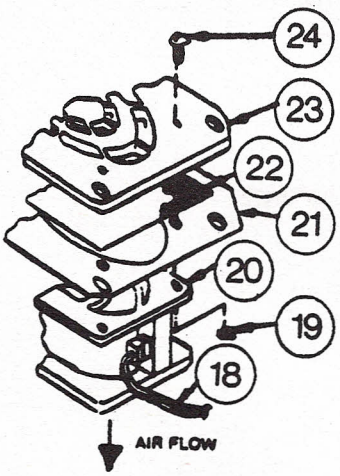
T-61759F1 Front Entry T-61759F2 Side Entry

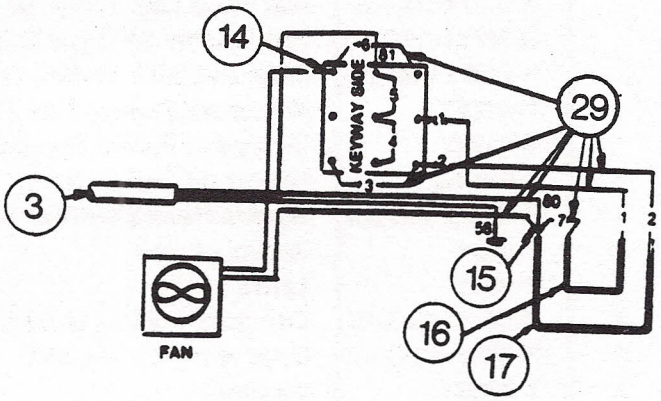
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1		T-61745	Basket Assembly with Door Front Entry
		T-61758	Basket Assembly with Door Side Entry
2		T-5494	Retainer
3		T-X-47	Colter Pin 1/8 x 1 - 1/2
4		H-NC01-12F-RS	Nut Castle 3/4 - 16 UNF Grade 5
5		T-60201	Weldment Cylinder Anchor
6		H-SC74-06C-20	Hex Head Cap Screw 3/8 - 16 UNC Grade 5
7		H-WF01-06C-20	Flat Washer 3/8 Type B Regular
8		H-NE01-06C-R5	Esna Nut 3/8 - 16 UNC Grade 5
9		T-61757	Weldment Basket Side Entry
		T-61727	Weldment Basket Front Entry
10	1	T-61742F1	Weldment Basket Door
11	1	H-SE83-05C-04	Square Head Shoulder Screw 5/16 - 18 UNC
12	1	T-3581	Spring - Latch
13	1	T-6851	Latch
14	2	H-SC74-05C-10	Cap Screw 5/16 - 18 UNC x 1" Long
15	2	H-NE01-05C-R5	Esna Nut 5/16 - 18 UNC
16	2	T-7065	Washer
17	1	H-SC74-04C-16	Screw 1/4 - 20 UNC x 1 - 3/4 Long
18	2	H-NE01-04C-R5	Esna Nut 1/4 - 20 UNC
19	1	H-SC74-04C-16	Screw 1/4 - 20 UNC x 1 3/4 Long
20	1	T-7746	Strap Tab
21	1	T-7758	Hook & Safety Strap
NS	1	T-63385F3	Hook - Steel Basket with Door (spring loaded-used on all A-28C baskets)

BASKET HEATER ASSEMBLY 220 VOLT, AND MOUNT BRACKET T-10640



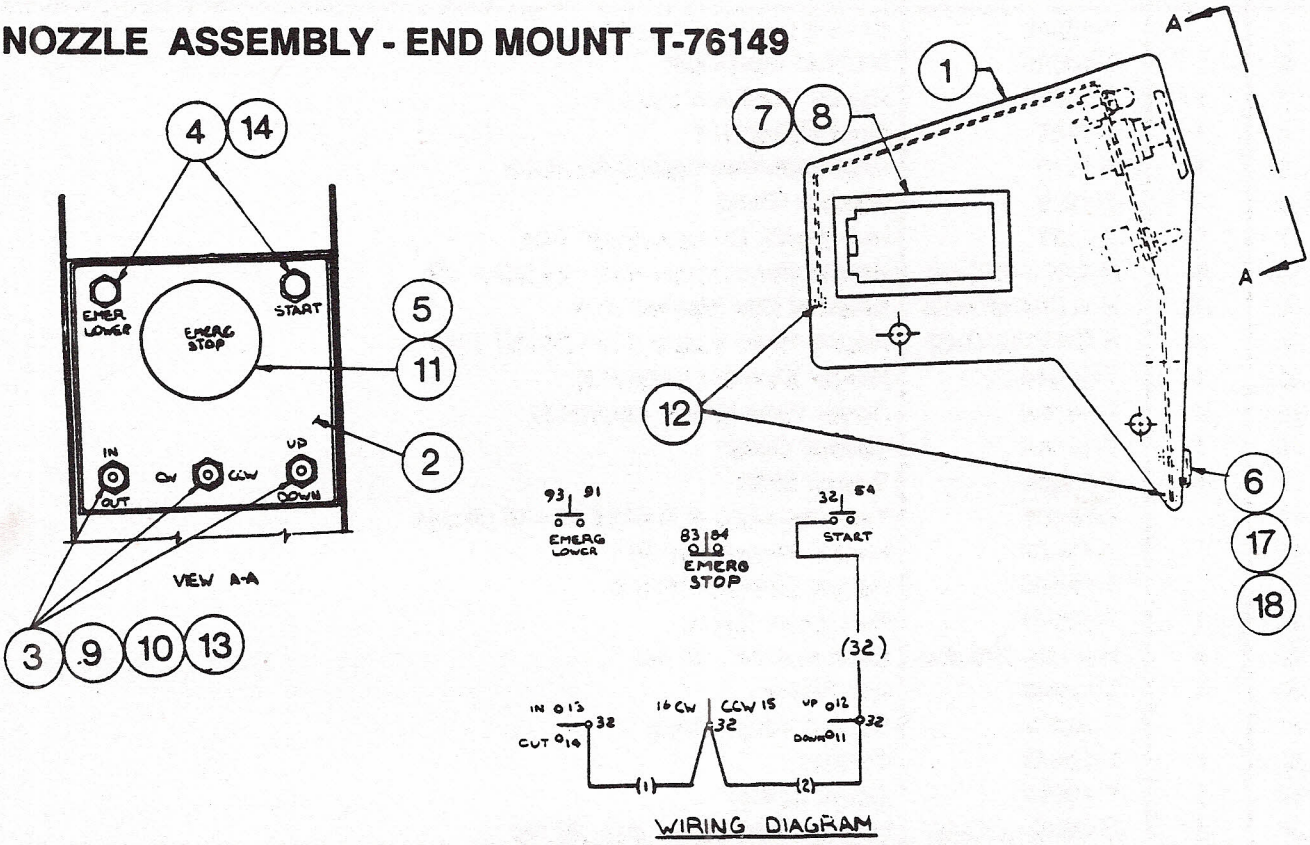






ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1		T-10642	Basket Heater Assembly
2		T-10649	Bracket Assembly
3	1	T-10660	Heater Cord and Plug
4	1	T-1105	Cord Fitting 1/2"
5	1	T-1110	Grommet-Watertight Connector
6	1	T-1203	Washer Gland
7	1	T-1107	Nut-Gland, Crouse-Hinds #94
8	6	H-SR83-0KC-04	Round Head Screw #10 - 24 NC x 1/2
9	16	H-WU01-0KA-00	External Star Washer #10
10	10	H-SR83-0KC-03	Round Head Screw #10 - 24 NC x 3/8
11	1	T-10644	Heater Element Assembly
12	1	T-10594	Cover Plate Heater Assembly
13	1	T-10655	Gasket Cover
14	1	T-10656	Switch 3PDT
15		T-10661	Terminal-Ring #10 Stud 14 - 16 Gauge
16		T-10646	Heater Element 500W
17		T-10645	Heater Element 1000W
18	1	T-10779	Fan Motor Cable
19	4	H-NE01-0FC-R5	Esna Nut #6 - 32 NC
20	1	T-17986	Fan Motor
21	1	T-10678	Gasket Motor Cover
22	1	T-12413	Screen
23	1	T-10657	Cover Heater
24	4	H-SR83-0FC-06	Round Head Screw #6 - 32 NC
25		T-18017	Plug (comes with T-10660)
26		T-1035	Hex Seal Toggle Type
27		T-10654	Plate Cover
28		T-10670	Switch Guard
29		T-10092	Wire 16 Gauge Heat Resistant
NS	1	T-18016	Receptacle (must be ordered when ordering 220 volt heater)
NS	1	T-13069	Weather Proof Cover (must be ordered when ordering 220 volt heater)
	REF	T-61388	110 Volt AC Basket Heater - Tendaire
	REF	T-74947	110 Volt AC Basket Heater - Gemini
	REF	T-74980	Field Kit - Basket Heater - Gemini Recess Housing for Square Fiberglass

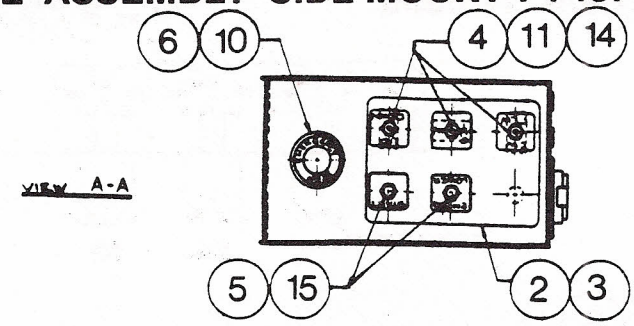
NOZZLE ASSEMBLY - END MOUNT T-76149

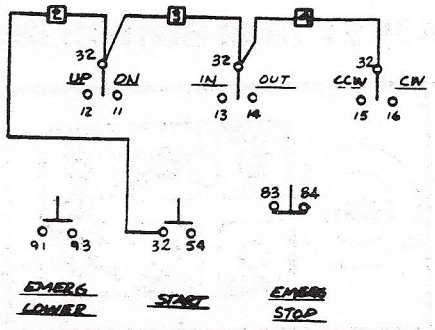


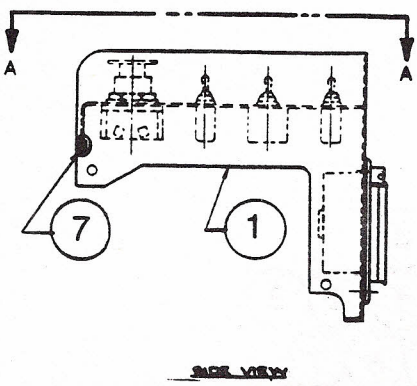
WIRING DIAGRAM

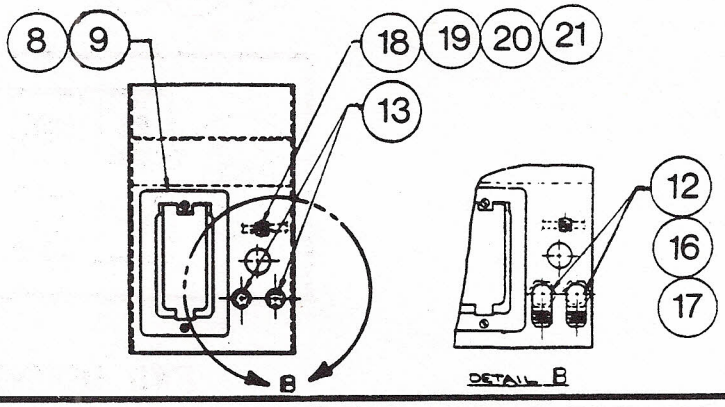
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-71481	Weldment - Nozzle
2	1	T-73260	Decal - Nozzle Face Fwd Mnt A-28
3	3	T-14404	Switch - Toggle SPDT Momentary
4	2	T-1774	Switch - Pushbutton SPST
5	1	T-51528	Switch - Contact Block, SU/A-28
6	2	T-19797	Ell-Blk HD 1/4 FL 37 x 1/4 FL 37
7	1	T-12873	Recepticle - GFI Duplex
8	1	T-12875	Cover - Weather Proof
9	3	T-14411	Seal - Bushing
10	9	P-S-141	Term - Dual Lug 90° Faston
11	1	T-2072	Button
12	1'	P-B-252	Channel-Rubber
13	3	T-1035	Hex Seal (Toggle)
14	2	T-1034	Hex Seal (P.B.)
NS	3	T-1097	Term - Faston Conn 1/4 x .032
NS	2	T-1070	Term - Closed End Conn 10-16
17	2	T-2635	Sealing Washer
18	2	H-WT01-10A-00	Washer - INT Star 5/8

NOZZLE ASSEMBLY SIDE MOUNT T-74671F1



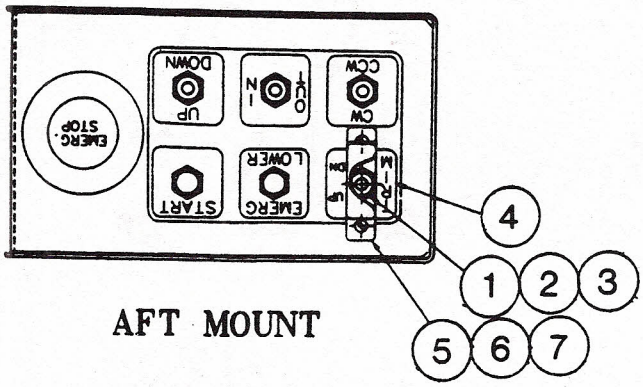




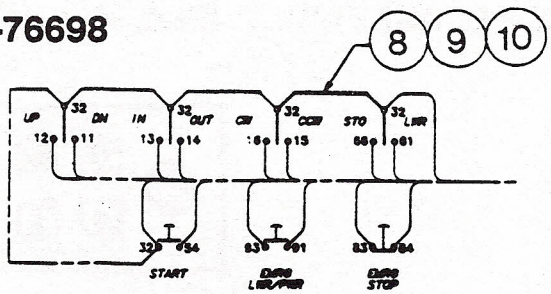


ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-74223	Weldment - Nozzle
2	REF	T-74677	Decal - Nozzle Basket Forward
3	REF	T-74676	Decal - Nozzle Basket Aft
4	3	T-14404	Switch - Toggle SPDT Momentary
5	2	T-1774	Switch - Pushbutton Norm Open
6	1	T-51528	Switch - Contact Block NC
7	1FT	P-B-252	Channel - Rubber
8	1	T-12873	Recepticle - 5 Wire GFI
9	1	T-12875	Cover - W eather Snap Type
10	1	T-2072	Button - Emergency Stop
11	3	T-14411	Seal - Bushing
12	2	T-19797	Union - Bulkhead Ell
13	2	T-2060	Cover - Hole 1/2 Dia
14	3	T-1035	Seal - Hex
15	2	T-1034	Seal - Pushbutton
16	2	T-2635	Washer-Sealing
17	2	H-WT01-10A-00	Washer - Lock Int 5/8
18	1	T-13062	Cable Mount
19	1	T-2090	Ty Rap - Med
20	1	H-SP83-OHC-04	Screw - Phillips Head # 8-32 x 1/2 LG
21	1	H-NK01-OHC-R5	Nut Keps #8-32

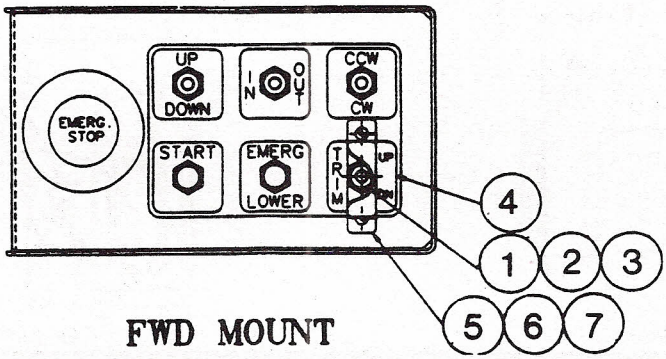
BASKET TRIM SWITCH INSTALLATION T-76698



AFT MOUNT



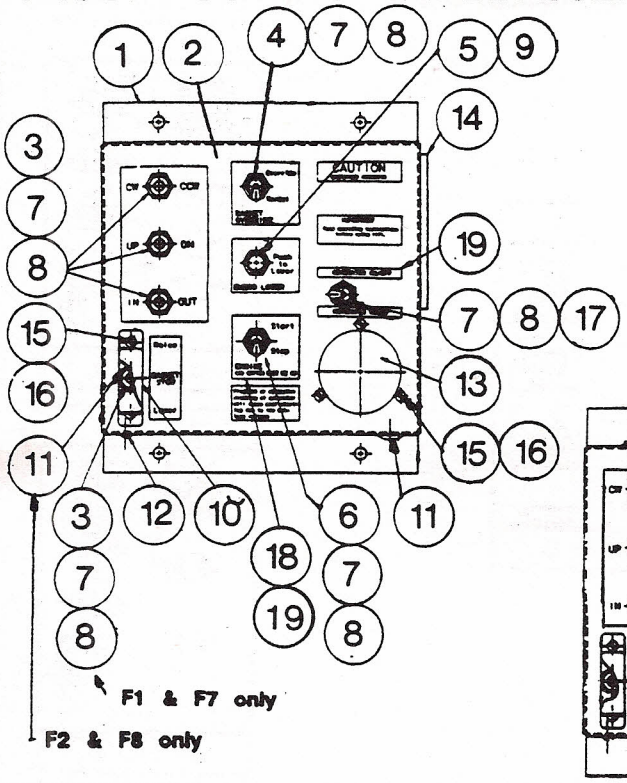
WIRING

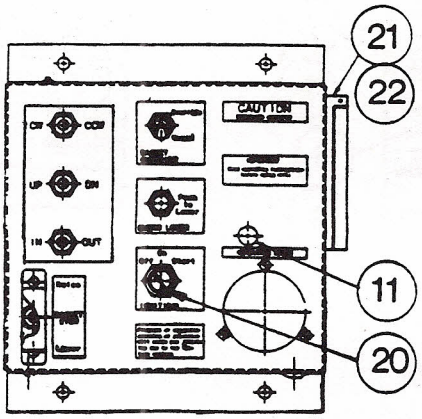


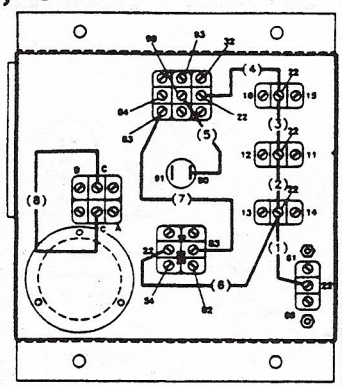
FWD MOUNT

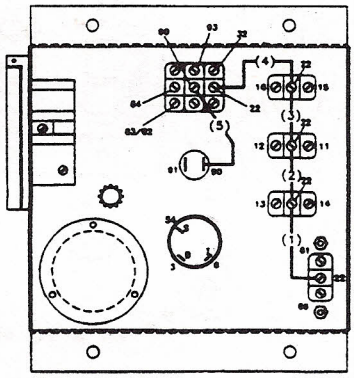
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-14404	Switch - Toggle Spdt.
2	1	T-1035	Hex Seal - Toggle Switch
3	1	T-14411	Seal Bushing
4	1	T-76700	Basket Trim Decal
5	1	T-2595	Switch Guard
6	2	H-SP83-0FC-04	Pan Head Screw #6 - 32 x 1/2"
7	2	H-NK01-0FC-R5	Keps Nut #6 - 32
8	.5'	P-03907	Wire #16 Awg. White/Red
9	2	P-B-135	Term-Spade #8
10	2	H-PB-170-32	Wire Marker #32

GROUND CONTROL PANEL ASSEMBLY T-76225F1,F2,F7,F8



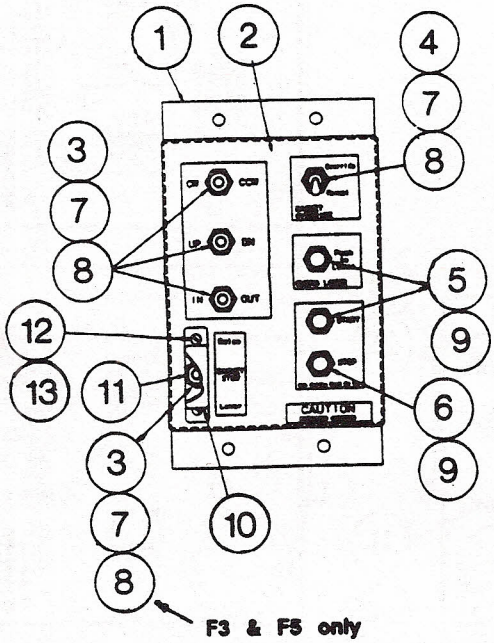


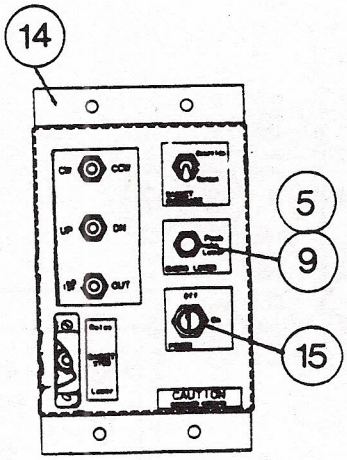


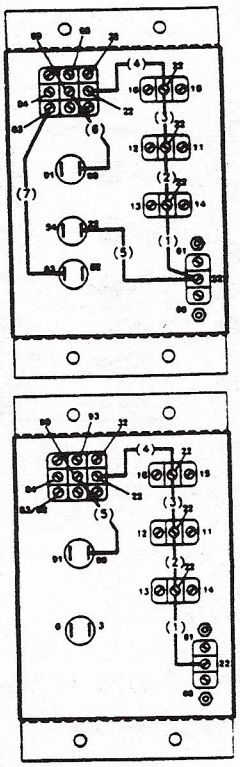


ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-19900	Ground Control Panel
2	1	T-65701	Faceplate
3	4	T-14404	Toggle Switch, Spdt.
4	1	T-1977	Toggle Switch, 3pdt.
5	1	T-1774	Switch, P. B. Spst. N.O.
6	1	T-18577	Toggle Switch, Dpdt. On/On
7	7	T-14411	Bushing Seal, Toggle Switch
8	7	T-1035	Hex Seal, Toggle
9	1	T-1034	Hex Seal, P.B.
10	1	T-2595	Switch Guard
11	2	T-68337	Hole Plug 1/20
12	2	T-68338	Hole Plug 1/40
13	1	T-6289	Blank Cover
14	1	P-1323	Cover Plate (Screw and Gasket)
15	5	H-SP83-0FC-04	Pan Head Screw #6 - 32 x 1/2"
16	5	H-NK01-0FC-R5	Keps Nut #6 - 32
17	1	T-15072	Toggle Switch, Dpdt.
18	1	T-65087	Engine Start/Stop Decal
19	1	T-65296	Generator On/Off Decal
20	1	T-11343	Ignition Switch
21	1	T-12873	Ground Fault Receptacle
22	1	T-12875	G.F.I. Cover

GROUND CONTROL PANEL ASSEMBLY T-76255F3-F6

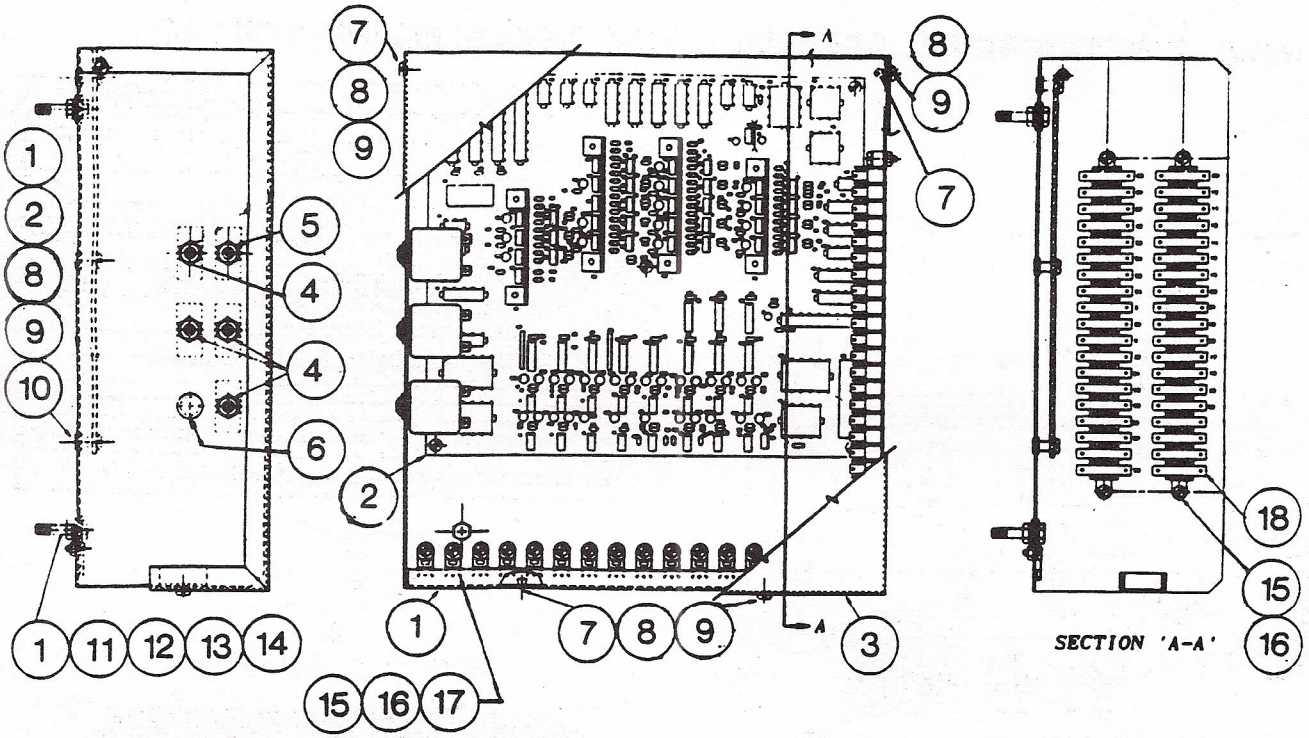






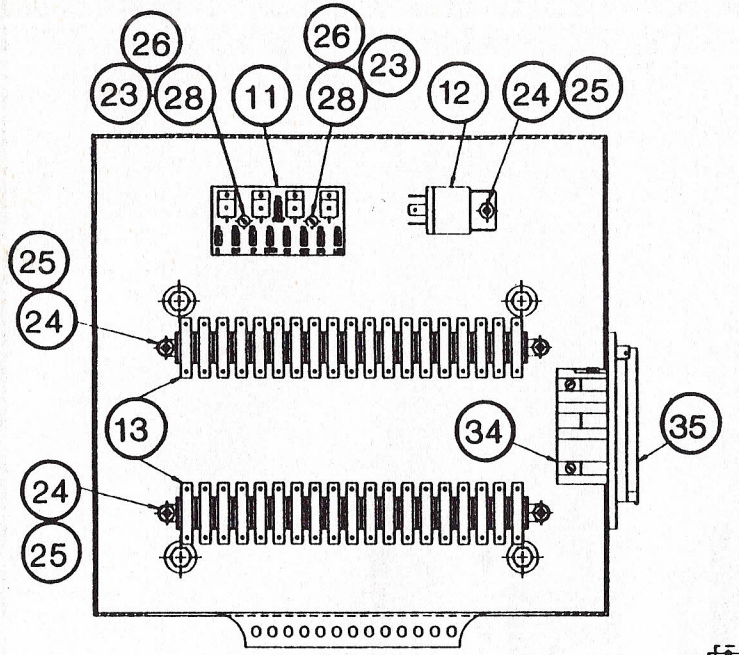
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-64421	Ground Control Panel - (BDP/PTO)
2	1	T-64422	Faceplate
3	4	T-14404	Toggle Switch, Spdt.
4	1	T-1977	Toggle Switch, 3pdt.
5	2	T-1774	P.B. Switch, Spst N.O.
6	1	T-12465	P.B. Switch, Spst. N.C.
7	5	T-14411	Bushing Seal, Toggle Switch
8	5	T-1035	Hex Seal, Toggle
9	2	T-1034	Hex Seal, P.B.
10	1	T-2595	Switch Guard - (for positive leveled)
11	1	T-68337	Hole Plug 1/20 - (for gravity leveled)
12	2	H-SP83-0FC-04	Pan Head Screw #6 - 32 x 1/2"
13	2	H-NK01-0FC-R5	Keps Nut #6 - 32
14	1	T-60003	Ground Control Panel - (D.C.)
15	1	T-16995	Keylock Switch, Spst.

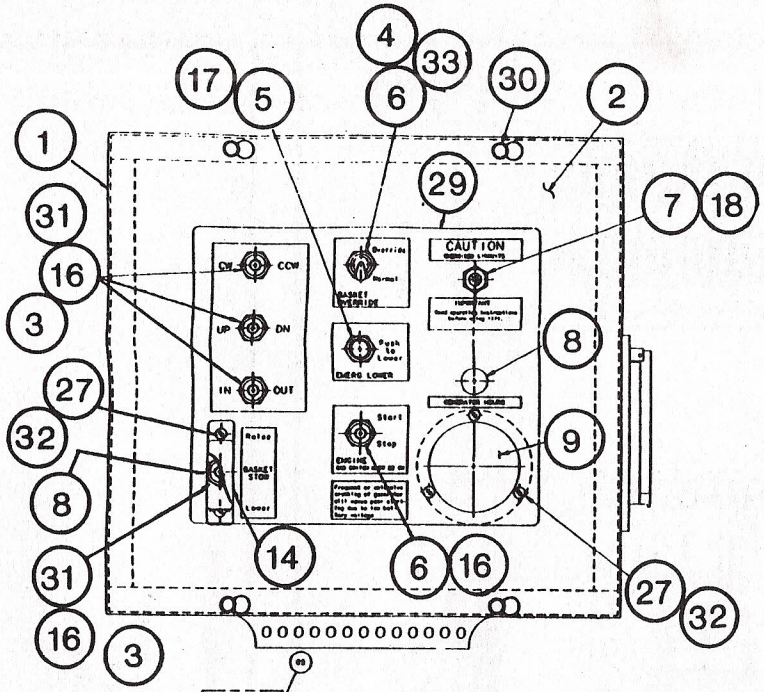
MAIN JUNCTION PANEL ASSEMBLY - SOLID STATE CONTROLS T-72900

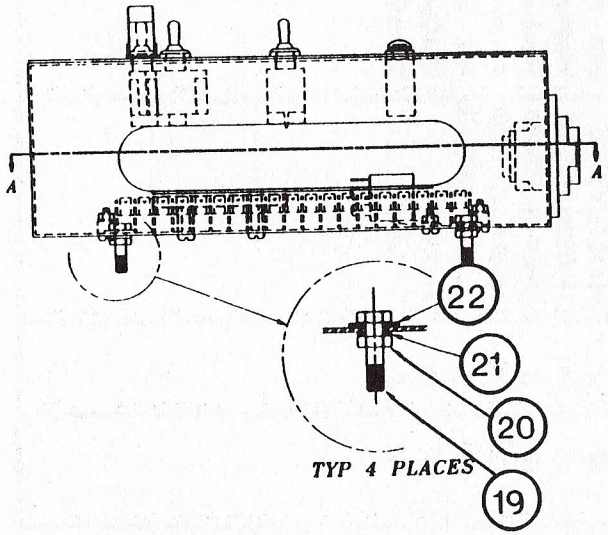


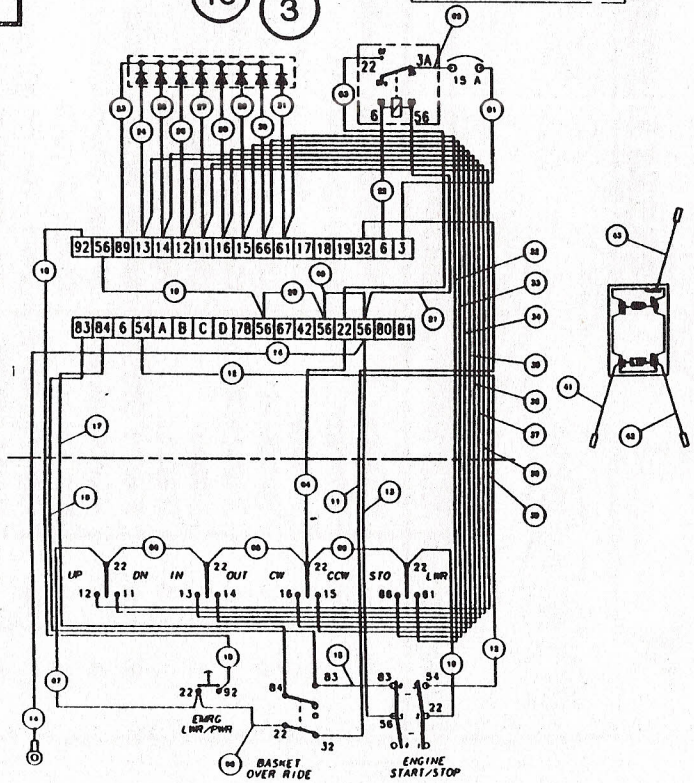
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-74476	Weldment - Main Junction Panel
2	1	T-72901	Assy - Circuit Board
3	1	T-74473	Cover - Main Junction Panel
4	1	T-63354F3	Circuit Breaker - 20 AMP
5	2	T-63354F2	Circuit Breaker - 10 AMP
6	1	T-2060	Chassis Plug - 1/2"
7	4	P-02811	Nutsert - #10-32
8	9	H-SP83-OKF-04	Screw - Pan HD # 10-32 x 1/2"
9	9	H-WT01-0KA-00	Washer - Internal Star #10
10	5	T-2170	Rivnut - # 10-32
11	4	H-SC74-04C-12	Screw - Hex Head Cap 1/4-20 x 1 1/4"
12	4	H-N01-04C-R5	Nut - Hex 1/4-20
13	4	H-WS01-040-00	Washer - SP LK 1/4"
14	8	H-WF01-04B-R0	Washer - Flat 1/4" Type B Reg
15	19	H-SP83-OHC-04	Screw - Pan HD #8-32 x 1/2"
16	19	H-NK01-OHC-R5	Nut - Keps # 8-32
17	15	T-13062	Cable Mount
18	2	T-13061	Term Block - 19 Terminal 20 AMP

MAIN JUNCTION PANEL ASSEMBLY - NON-CIRCUIT BOARD T-78705F





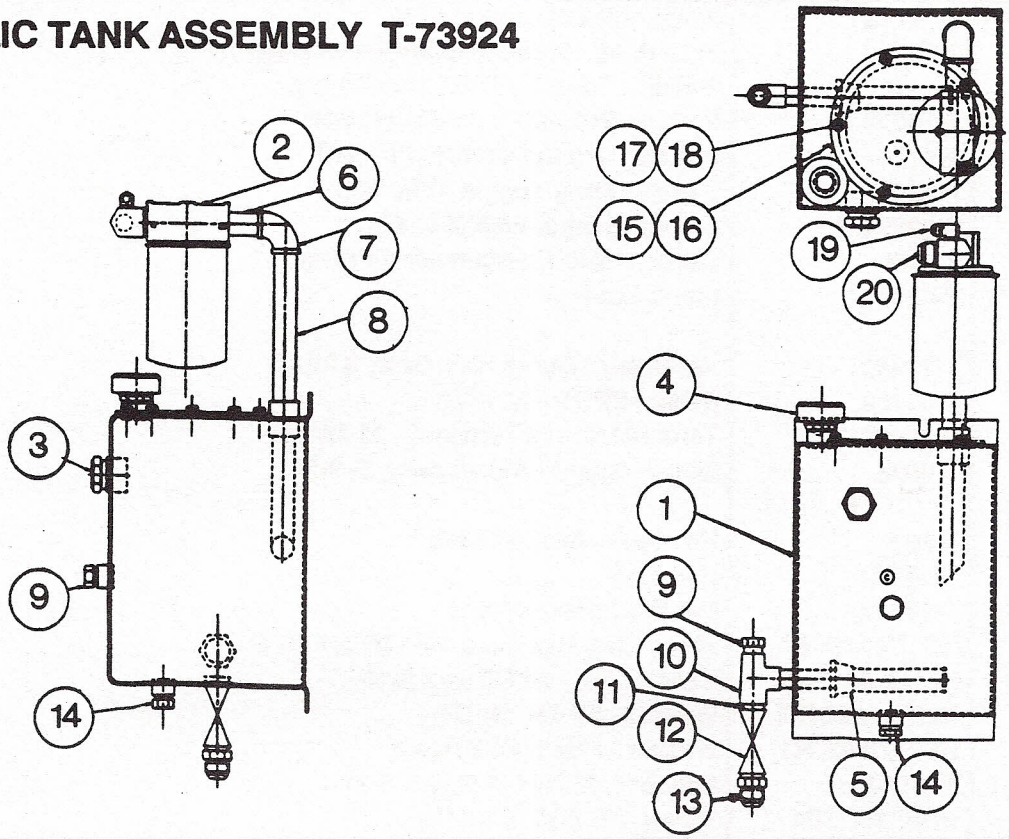



92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
UP DN IN OUT CW CCW STO LWR
EMRG LWR/PWR
BASKET OVER RIDE
ENGINE START/STOP

WIRE	CKT	GA	COLOR	WIRE P/N	LENGTH	TERMINALS	
43	56	16	GRN	T-10068F	12.0	T-1143	P-B-135
42	42	16	WHT	T-10068E	10.0		P-B-135
41	67	16	BLK	T-10068	10.5		P-B-135
40	56	16	GRN	T-10068F	2.5		T-11588
39	12	16	RED	T-10068B	33.0		T-1143
38	11		ORG	T-10068G	33.0		
37	13		BLU	T-10068A	33.5		
36	14		WHT	T-10068E	34.0		
35	16		BLK	T-10068	33.0		
34	15		WHT	T-10068E	34.0		
33	66		ORG	P-03987	37.0		
32	61		BLU	T-10068A	37.0		T-1143
31	61		BLU	T-10068A	12.0		T-1143
30	66		ORG	T-10068G			
29	15		WHT	T-10068E			
28	16		BLK	T-10068C			
27	11		ORG	T-10068G			
26	12		RED	T-10068B			
25	14		WHT	T-10068E			
24	13		BLU	T-10068A			
23	89		WHT	T-10068E			
22	8		WHT	T-10068E	12.0		
21	56		GRN	T-10068F	21.0	T-1143	
20	56		GRN	T-10068F	4.0	T-11588	
19	56		GRN	T-10068F	18.0	T-11588	
18	92		GRN	T-10068F	32.0	T-1143	
17	84		BLU	T-10068A	32.0		
16	83		YEL	T-10068	32.5		T-1143
15	83		YEL	T-10068	9.0		T-11588
14	56		GRN	T-10068F	96.0		T-20437
13	56		GRN	T-10068F	29.5		T-1143
12	54		BLK	T-10068C	37.0		T-1143
11	32		RED	T-10068B	18.0		T-1143
10	22		ORG	T-10068G	7.0		T-1143
9	22				3.0		T-1143
8	22				8.0		T-11588
7	22				3.5		T-11588
6	22				2.5		T-1143
5	22	16		T-10068G	2.5		T-1143
4	22	14		T-10106D	29.5		T-11588
3	22	14	ORG	T-10106D	20.0		T-1143
2	3A	14	RED	T-10106B	18.0		T-1143
1	3	14	RED	T-10106B	17.0	T-1143	T-1143

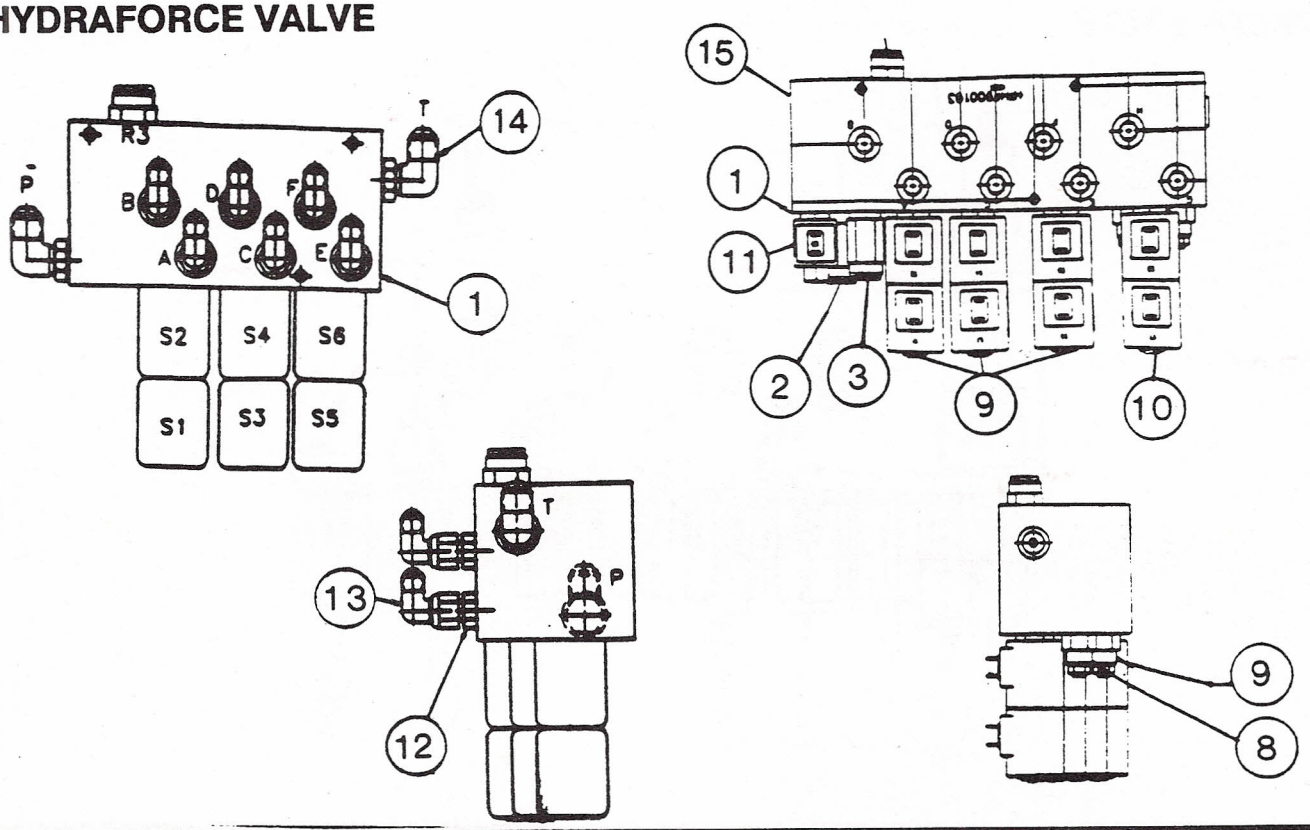
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-78703	Panel - Main Junction A28D
2	1	T-78702	Face Plate - Main Junction Panel A28D
3	3	T-14404	Switch - Toggle - SPDT Momentary
4	1	T-15072	Switch - Blower - 2 positive toggle
5	1	T-1774	Switch - Ground Control PB - NO
6	1	T-18577	Switch - Limit Toggle AZM, A28
7	1	T-63354F2	Circuit Breaker W58XB4A4A-15
8	1	T-2060	Cover - Hole 1/2 Diameter 8 Prong
9	1	T-6289	Blank Cover
10			
11	1	T-72940	Assembly - Dump "OR" Gate, 8 Input
12	1	T-65259	Relay - SPDT - 12 VDC
13	2	T-13061	Term Black - 19 Terminal - 20 AMP
14	1	T-2595	Switch Guard - Stow/Lower, S/SU
15			
16	5	T-1035	Hex Seal - APM #1030B
17	1	T-1034	Hex Seal
18	1	T-63360	Hex Seal Clear #40151
19	4	HSC7404C10	Screw Cap Hex Head 1/4 - 20 x 1 ZN 5
20	4	HNH0104CR5	Nut Hex 1/4 - 20 CZ Reg GR5
21	4	HWS0104OOO	Washer - SP LK 1/4 CZ
22	4	HWF0104BRO	Washer - Flat 1/4 CZ Reg 8
23	2	P06150F1	Spacer 5/16 Hex X 9/16 X 6-32
24	5	HSP830HC04	Screw PH 8-32 X 1/2 CZ
25	5	HNK01OFCR5	Nut Keps 8-32 CZ Reg GR5
26	5	HSP83OFC02	Screw - PH 6-32 X 1/4 CZ
27	5	HNK01OFCR5	Nut Keps 6-32 CZ Reg GR5
28	4	HWT01OFAOO	Washer - Int Star #6 CZ A
29	1	T-78704	Decal - Faceplate GCP A28D
30	4	HSZ83OKM06	Screw Hex Head Self Drill Teks #10 X 3/4
31	12	PS141	Term - Tab QD Twin 90 X 90
32	5	HSP83OFC03	Screw PH 6-32 X 3/8 CZ
33	6	T-68775	Term - Tab QD Single 90 .250
34	1	T-12873	GFI Receptacle - Five Wire
35	1	T-12875	Weather Cover - Snap Type with Gasket

HYDRAULIC TANK ASSEMBLY T-73924



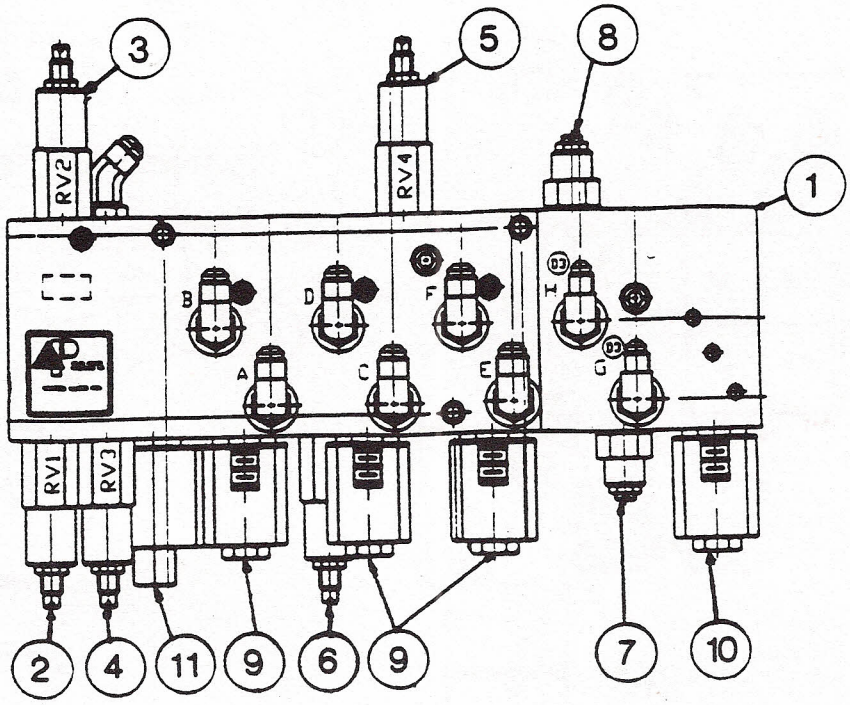
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-73925	Weldment - Hyd Tank
2	1	T-25237	Filter
3	1	T-19720	Gauge - Sight
4	1	T-74460	Cap - Filler/Breather A-28D
5	1	T-74465	Strainer
6	1	T-69587	Nipple - 3/4 MPT x 2.5
7	1	T-76532	Ell - Fem 3/4 FPT
8	1	T-76530	Nipple Plated - 3/4 NPT x 7.5
9	2	T-1098	Plug - Hex 1/2 MPT STL
10	1	T-76531	Tee - Plated 3/4 x 1/2 x 1/2
11	1	T-25430	Nipple - Close 3/4 NPT
12	1	T-63791	Valve - 3/4 FPT
13	1	T-2170	Conn - Male 3/4 MPT x 3/4 FL
14	1	T-74464	Plug - Magnetic 1/2 MPT
15	1	T-73930	Cover - Hyd Tank
16	1	T-73931	Gasket - Hyd Tank
17	5	H-SH73-04C-06	Screw - Hex Head 1/4-20 UNC x 3/4
18	5	H-WS01-040-00	Washer - Split Lock
19	1	T-22834	Elbow
20	1	T-19721	Elbow
	REF	T-19727	Return Filter Element, 10 MIC - 175 PSI

HYDRAFORCE VALVE



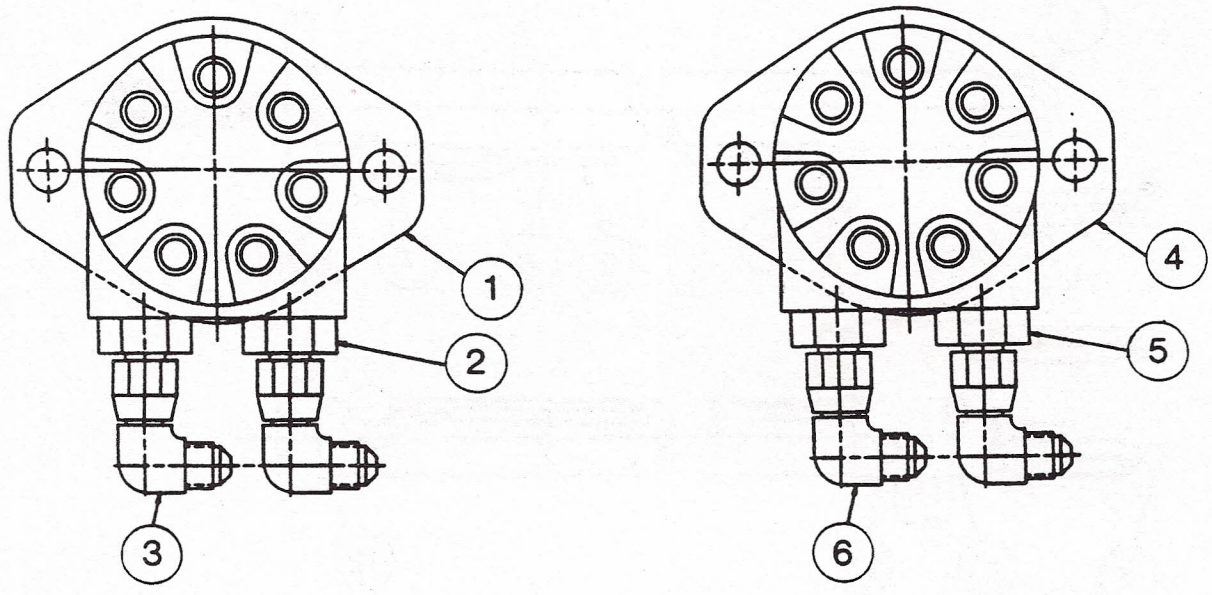
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-74495	Selector Valve Assembly
2	1	T-76951	RV1 - System Relief Valve
3	1	T-76952	RV2 - Up Relief Valve
4	1	T-76953	RV3 - Down Relief Valve
5	1	T-76954	RV4 - Clockwise Relief Valve
6	1	T-76955	RV5 - Counterclockwise Relief Valve
7	1	T-76956	CB1 - Positive Leveling Relief (1500 PSI)
8	1	T-76957	CB2 - Positive Leveling Relief (2000 PSI)
9	3	T-76958	Function Cartridge (Up, Down, In, Out, Clockwise, Counterclockwise)
10	1	T-76959	Positive Leveling Cartridge
11	1	T-76399	System By Pass Cartridge
12	6	T-11773	Male Connector -3/8 O-Ring x 3/8 FL37-ST
13	6	T-21128	Ell - Swivel 3/8 FFL x 3/8 FL37
14	2	T-16468	Ell - Male 1/2 O-Ring x 1/2 FL37
15	1	T-74782	Hydraforce Valve Manifold
	REF	T-76996	Electric Coil for items 9 & 10

DELTA VALVE



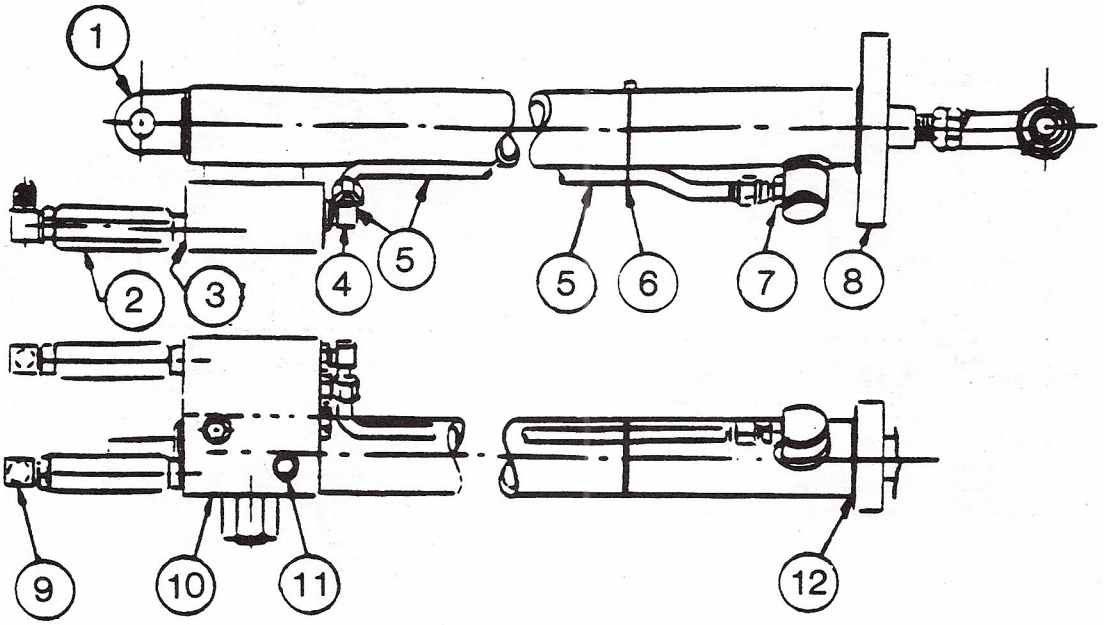
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	REF	T-74782	Selector Valve Assembly
2	1	T-76390	RV1 - System Relief Valve
3	1	T-76391	RV2 - Up Relief Valve
4	1	T-76392	RV3 - Down Relief Valve
5	1	T-76393	RV4 - Clockwise Relief Valve
6	1	T-76394	RV5 - Counterclockwise Relief Valve
7	1	T-76395	CB1 - Positive Leveling Relief (1500 PSI)
8	1	T-76396	CB2 - Positive Leveling Relief (2000 PSI)
9	6	T-76397	Function Cartridge (Up, Down, In, Out, Clockwise, Counterclockwise)
10	2	T-76398	Positive Leveling Cartridge
11	1	T-76399	System By Pass Cartridge
	REF	T-76995	Electric Coil for items 9 & 10

HYDRAULIC MOTOR ASSEMBLY



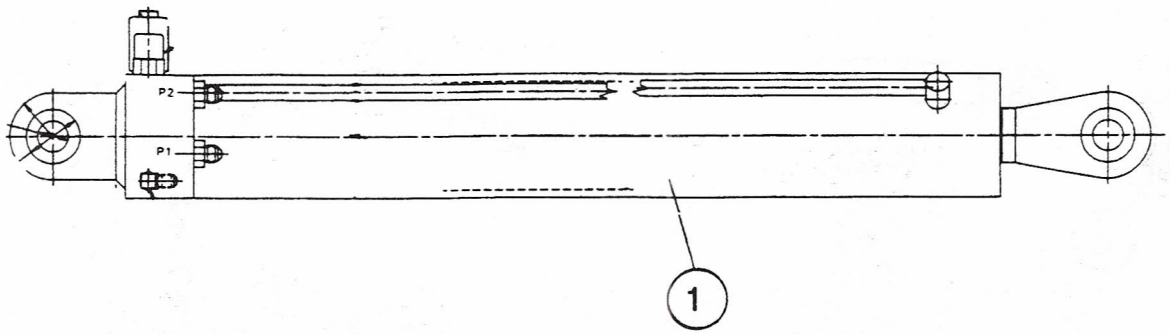
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
REF		T-74502	Hydraulic Motor Assembly, 2.8 CU IN - Side Mounted Basket
REF		T-74503	Hydraulic Motor Assembly, 3.6 CU IN - End Hung Basket
1	1	T-74454	Hydraulic Motor - 2.8 CU IN - Splined - Side Mounted Basket
2	2	T-60413	Male Connector 5/8 O-Ring x 3/8 FL37
3	2	T-21128	Ell - Swivel 3/8 FFL x 3/8 FL37
4	1	T-74455	Hydraulic Motor - 3.6 CU IN - Splined - End Hung Basket
5	2	T-60413	Male Connector 5/8 O-Ring x 3/8 FL37
6	2	T-21128	Ell - Swivel 3/8 FFl x 3/8 FL37

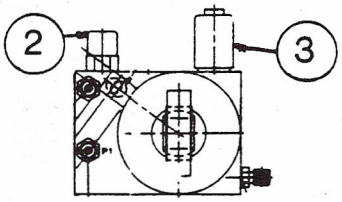
EXTENSION CYLINDER ASSEMBLY - T-24850

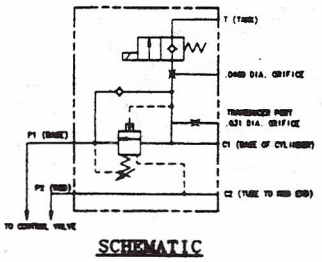


ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-24902	Spec Extension Cylinder Short (All Others)
2	2	T-63339	Fitting Hydraulic Ext. NT
3	2	T-11775	O-Ring .43 Inside Diameter x .62 OD Bunan-90
4	1	T-11774	Ell Male 3/8 O-Ring x 3/8 FL 37
5	1	T-63292	Tube Assembly Extension Cylinder
6	3	T-2090	Ty-Rap Med.
7	1	T-11773	Connector-Male 3/8 O-Ring x 3/8 FL 37-ST
8	1	T-25023	Block-Slide, Extension Cylinder
9	2	T-11774	Ell-Male 3/8 O-Ring x 3/8 FL 37
10	1	T-63293	Valve Counter-Balance Extension Cylinder**
11	2	H-SC74-05C-15	Hex Head Cap Screw 5/16 - 18 x 1 5/8 Grade 8
12	2	T-25022	Retaining Ring
N/S		T-64119	Seal Kit

ELEVATION CYLINDER ASSEMBLY



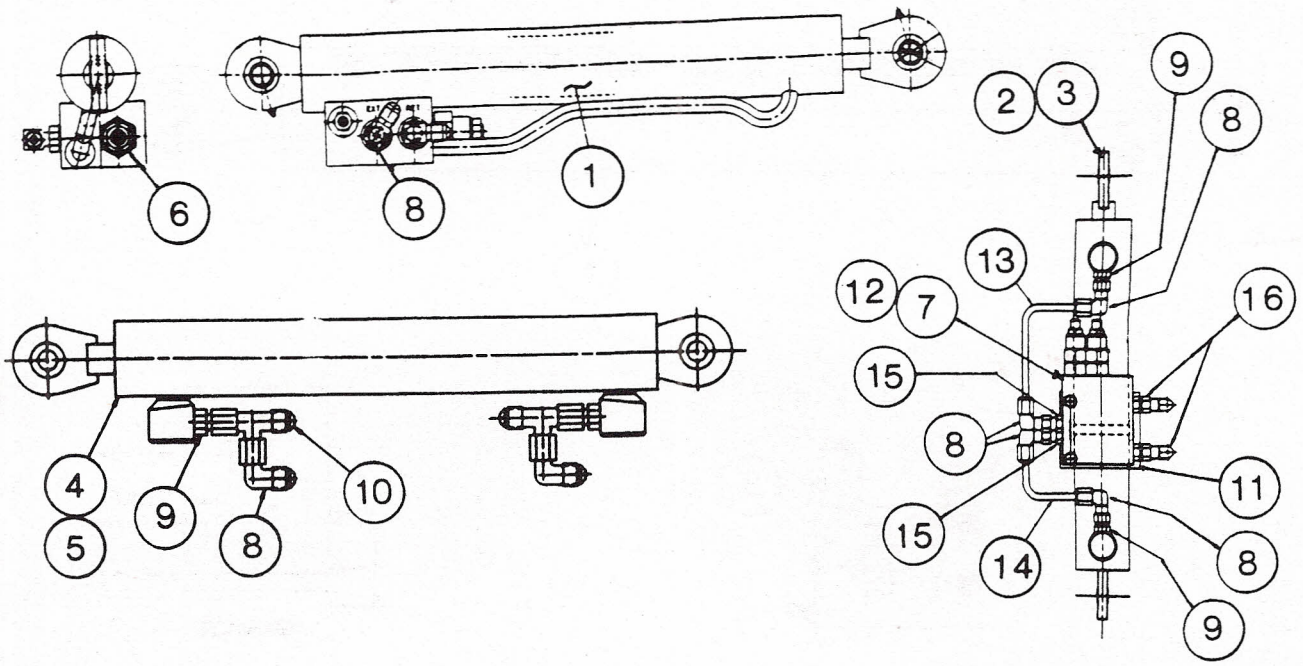




SCHEMATIC

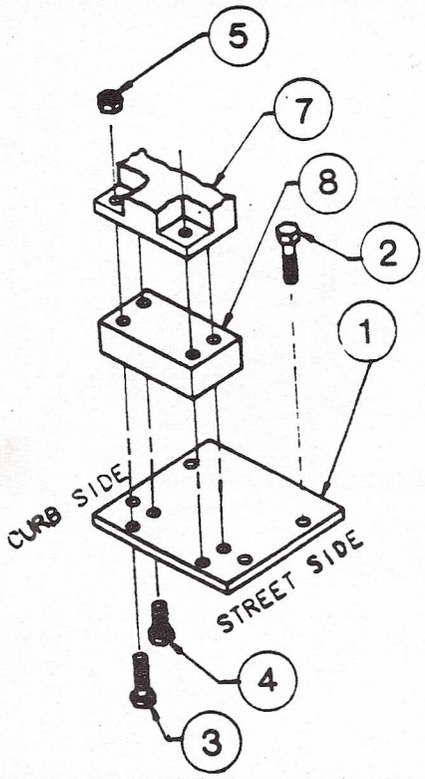
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-74446	Elevation Cylinder Assembly
2	REF	T-76732	Counter Balance Valve
3	REF	T-76949	Solenoid Valve
NS	REF	T-76349	Packing Kit

POSITIVE LEVELING CYLINDER ASSEMBLY



ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-75308	Slave Cylinder Assembly - Side Hung Basket
2		T-65104	Slave Cylinder Assembly - End Hung Basket
3	REF	T-65059	Slave Cylinder - End Hung Basket
4	1	T-74447	Master Cylinder - Side Hung Basket
5		T-74448	Master Cylinder - End Hung Basket
6	REF	T-76950	Valve Cartridge - Side Hung Basket Slave Cylinder
7	REF	T-74995	Valve Dual Counter Balance End Hung Slave Cylinder
8	REFr	T-17109	90 degree Elbow Fitting
9	REF	T-11756	Conn - Male - 1/4 O-ring x 1/4 FL37
10	REF	T-21465	Tee - Swivel Nut Run 1/4 FL37
11	REF	T-65106	Assembly - Valve Mounting Plate
12	REF	T-1622	Clamp - Hose
13	REF	T-74998F1	Tube Assembly
14	REF	T-74998F2	Tube Assembly
15	REF	T-25405	Conn - Male 3/8 O-ring x 1/4 FL37
16	REF	T-25215	Ell - Male 3/8 O-ring x 1/4 FL37
17	REF	H-SC74-04C-30	Screw - Hex Head Cap 1/4-20 x 3.0"
18	REF	H-WS01-040-00	Washer - SP Lock 1/4"
N/S	REF	T-76986	Packing Kit - End Hung Basket
N/S	REF	T-76987	Packing Kit - Side Hung Basket

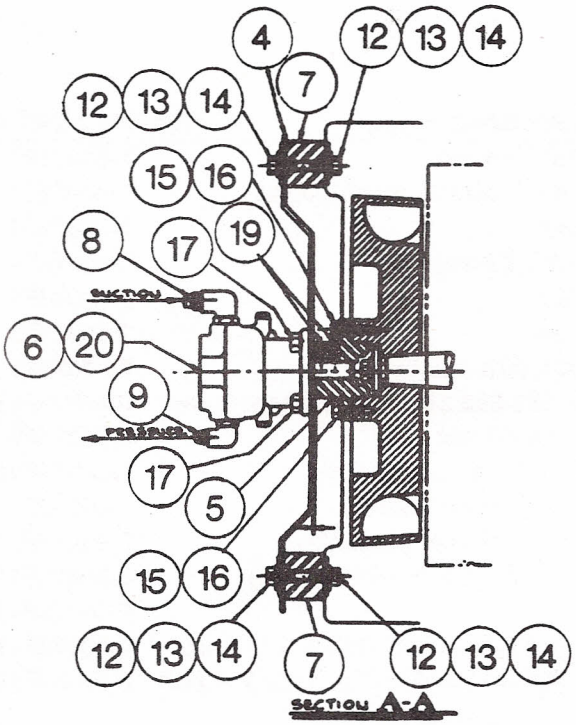
BELT DRIVEN PUMP MOUNTING KIT T-60075F

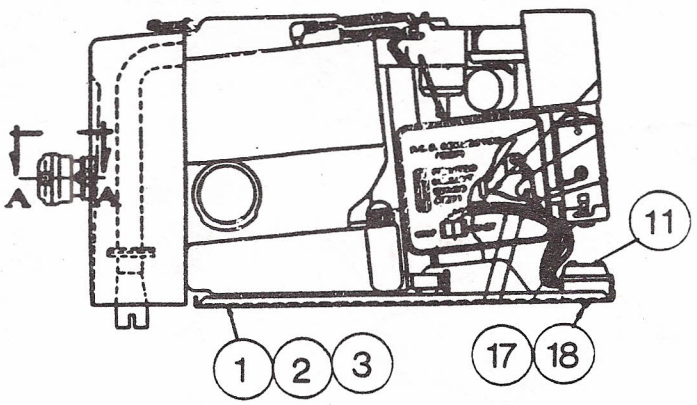


YEAR	ENGINE MAKE & SIZE	TELSTA PART #
79 - 85	Ford 351 Windsor	T-60075F1
84	Chev. 5.7 L with Power Steering	T-60075F2
86	Ford 351	T-60075F3
86	Ford 6.9 L Diesel	T-60075F4
86	Ford 460	T-60075F5
85 - 86	Chev. 350	T-60075F6
88	Ford 351 with out Air	T-60075F7
88	Ford E-350;302,351 Serpentine w/o Air	T-60075F8
88	Ford 7.3 L Diesel	T-60075F9
88	Ford E-350;4.9 L, 6 Cylinder	T-60075F10
89	Ford 7.3 L Diesel with Air	T-60075F11
89	Chev. 6.2 L Diesel Serpentine	T-60075F12
90	Ford 7.3 L Diesel (PS/PB/No Air)	T-60075F13
89	Ford 460	T-60075F14
91	Chev. 454 C.I.D. Auto (HD 4 Sp.) Serp.	T-60075F15
91	Chev. 454 C.I.D.-HD 4 Sp. Auto 2 V Belt	T-60075F16

ITEM #	QTY #	TELSTA PART #	DESCRIPTION
	REF	T-60075F14	Belt Driven Pump Kit Ford 460 "89"
1	1	T-74162	Mounting Plate
2	2	H-BH62-06C-10	Hex Head Bolt 3/8 - 16 x 1"
3	2	H-BH62-06C-12	Hex Head Bolt 3/8 - 16 x 1 1/4"
4	2	H-WS01-06O-OO	Lock Washer 3/8
5	2	H-NL01-06C-R5	Lock Nut 3/8 - 16
NS	1	T-76224F1	Serpentine Belt, Utility
7	1	T-0902738	Serpentine Belt Driven Pump
8	1	T-74163	Pump Mounting Kit Spacer
NS	1	T-76224F2	Serpentine Belt, Van
	REF	T-66120	Electric Clutch - Hydraulic Pump
	REF	T-60074	Hydraulic Pump, Belt Driven
	REF	T-10011	Emergency Brake Switch
	REF	T-60072	Flow Divider

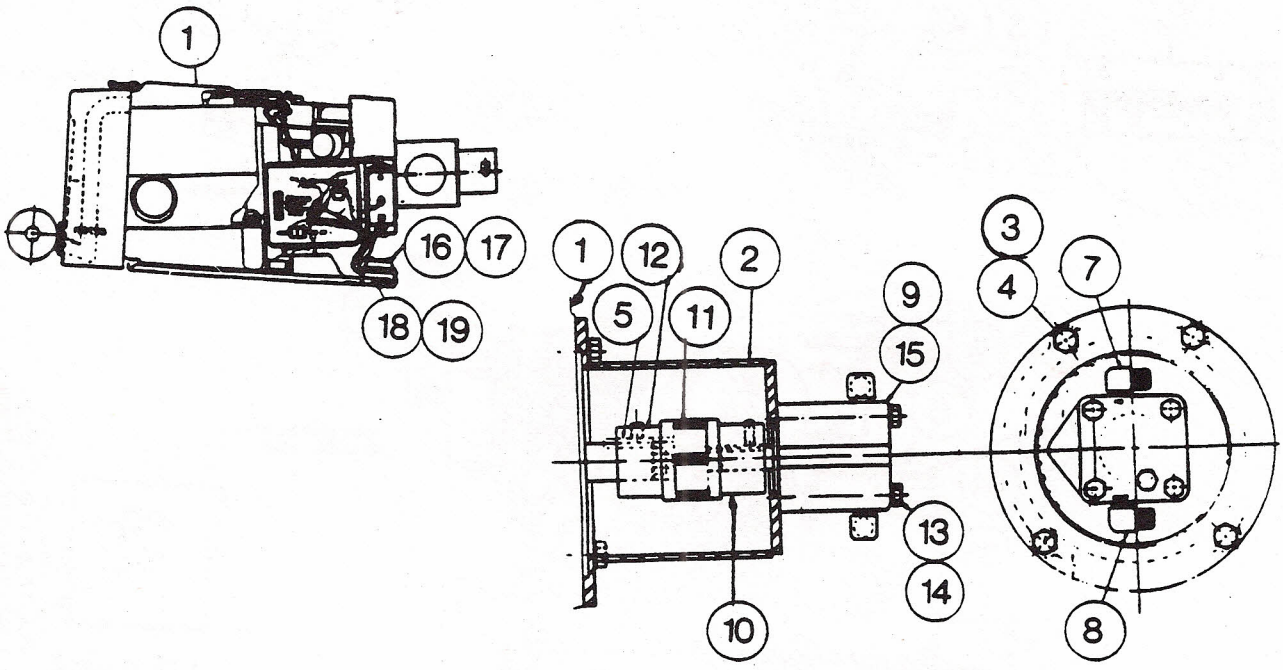
GENERATOR 4.5 BGD ASSEMBLY WITH FLYWHEEL MOUNTED PUMP





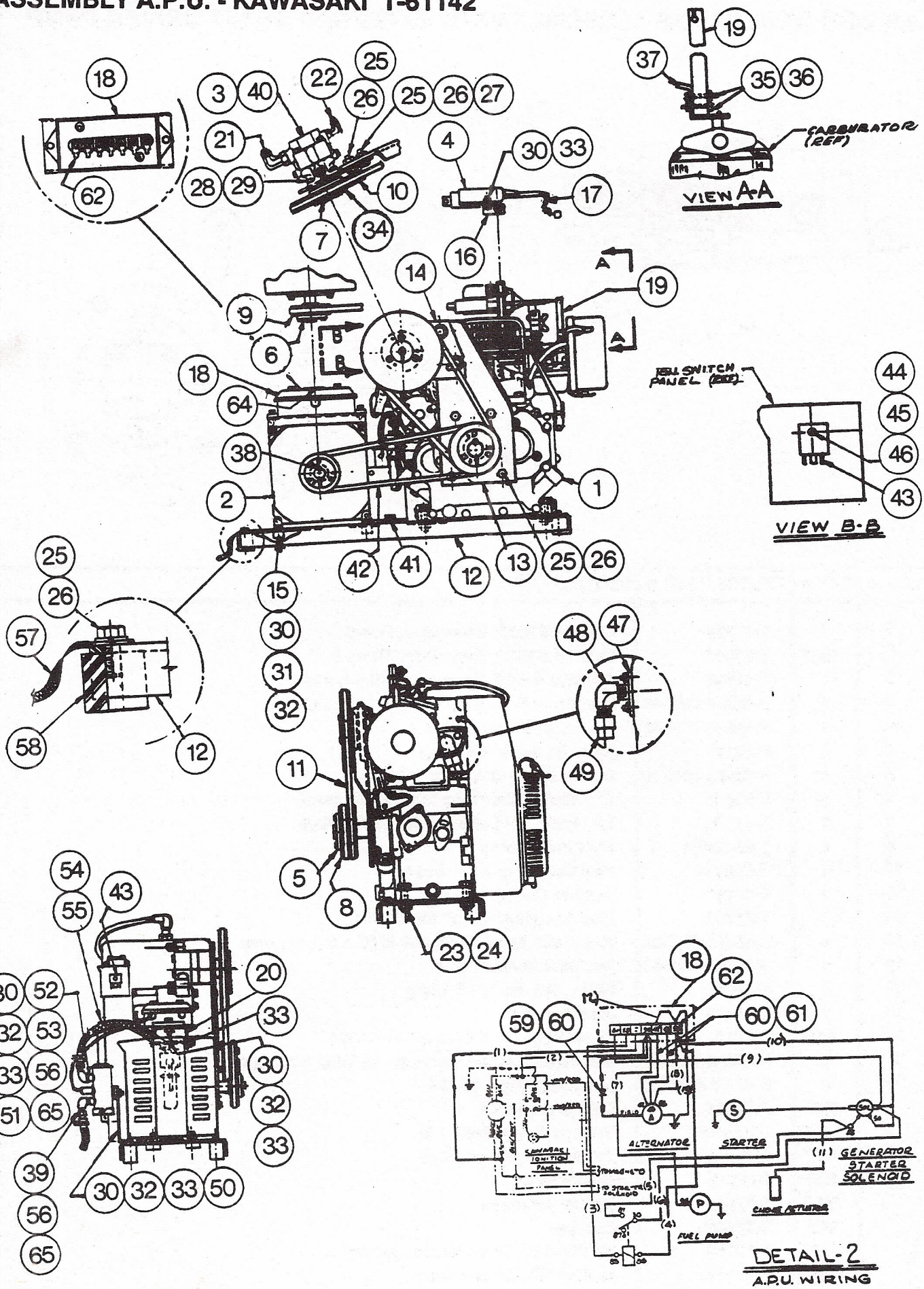
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	REF	T-71258	Specification, 4.5 BGD Single 0
	REF	T-71339	Specification, 4.5 BGD Three 0
2	1	T-71260F1	Modification, 4.5 BGD Generator 10
3	1	T-71260F2	Modification, 4.5 BGD Generator 30
4	1	T-64161	Pump Mount Plate
5	1	T-63715	Pump Mounting Adapter
6	1	T-62228F2	Hydraulic Pump APU
7	2	T-61493	Vibration Isolator
8	1	T-63800	Ell - Male 1/2 O-Ring x 3/4 FL 37
9	1	T-11774	Ell - Male 3/8 O-Ring x 3/8 FL 37
10	1	T-17555	Junction Box
11	3	T-1092	Term - Ring #10Stud
12	4	H-SC74-06C-03	Hex Head Cap Screw 3/8 - 16 x 5/8 Long
13	4	H-WF01-06B-W0	Flat Washer 3/8 Type B Wide
14	4	H-WS01-060-00	Sp. Lock Washer 3/8
15	2	H-SC74-05C-10	Hex Head Cap Screw 5/16 - 18 x 1.0 Long
16	2	H-WS01-050-00	Sp. Lock Washer 5/16
17	6	H-SC74-05C-06	Hex Head Cap Screw 5/16 - 18 x 3/4 Long
18	6	H-NL01-05C-04	Lock Nut 5/16 - 18 UNC
19	4	H-SL80-05C-04	Set Screw, Socket Head 5/16 x 1/2 Nylok
20	1	T-66405	Key, .125 Sq. x 1.0 Long
	REF	T-75894	Maintenance Kit - A-28D with BGD
	REF	T-0902181	Air Filter Element
	REF	T-30802	Oil Filter
	REF	T-30813	Points
	REF	T-75891	Condenser
	REF	T-74622	Spark Plug
	REF	T-77062	Fuel Pump

4.5 BGD GENERATOR ASSEMBLY WITH EXTENDED SHAFT DRIVEN PUMP



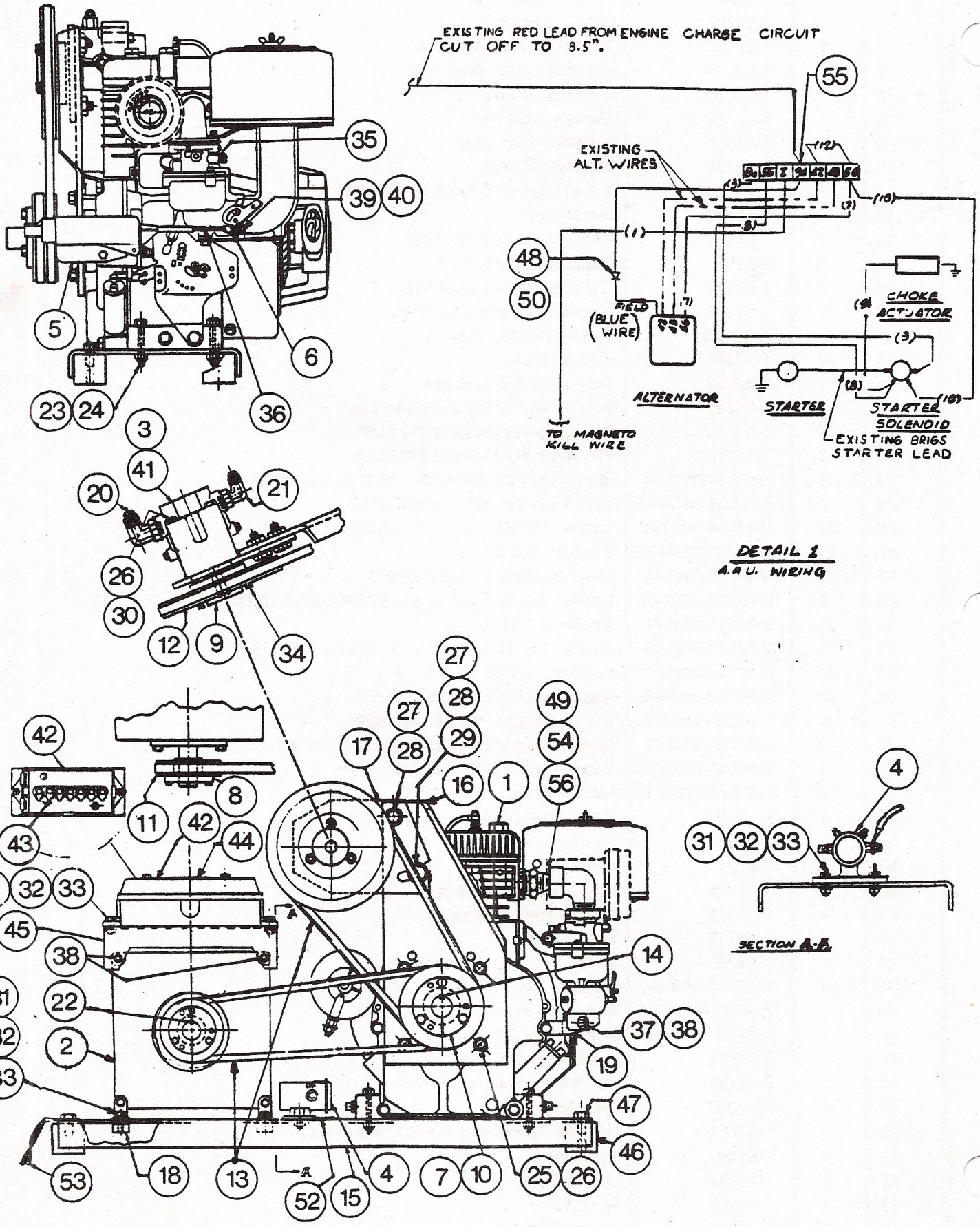
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-67036	Onan 4.5 BGD Generator, One 0
	REF	T-71340	Onan 4.5 BGD Generator, Three 0
2	1	T-69999	Adapter 4 BGE Generator, Machining
3	4	H-SC74-06C-16	Hex Head Screw 3/8 - 16 x 1 3/4 Long
4	4	H-WS01-060-00	Sp. Lock Washer 3/8
5	1	T-2237	Key, 1/4 Sq. x 1/4 Long
6	4	H-SH83-05C-10	Screw 5/16 - 18 UNC x 1" Long
7	1	T-63800	Ell - Male 1/2 O-Ring x 3/4 FL 37 Steel
8	1	T-11774	Ell - Male 3/8 O-Ring x 3/8 FL 37 Steel
9	1	T-62228F1	Hydraulic Pump
10	1	T-62203	Half Coupling 9/16" Shaft
11	1	T-17497	Rubber Coupling Insert
12	1	T-67012	Half Coupling 15/16" Shaft Mod.
13	4	H-SH83-05C-34	Hex Head Screw 5/16 - 18 UNC x 3 1/2" Long
14	4	H-WS01-050-00	Sp. Lock Washer 5/16
15	1	T-66405	Key - .125 Sq. x 1.0 Long
16	1	T-17555	Junction Box
17	REF	T-1092	Term Ring - #10 Stud #14 - 16 GA
18	2	H-SC74-05C-06	Hex Head Cap Screw 5/16 - 18 UNC x 3/4 Long
19	2	H-NL01-05C-R5	Lock Nut 5/16 - 18 UNC
	REF	T-76034	Circuit Board Kit
	REF	T-75340F1	Voltage Regulator - 1 O
	REF	T-75340F2	Voltage Regulator - 3 O
	REF	T-77065	Starter Motor
	REF	T-77066	Starter Solenoid
	REF	T-77067	Brushes
	REF	T-72717	Muffler Kit - Through Box Mount
	REF	T-72719	Muffler Kit - Deck Mount

ASSEMBLY A.P.U. - KAWASAKI T-61142



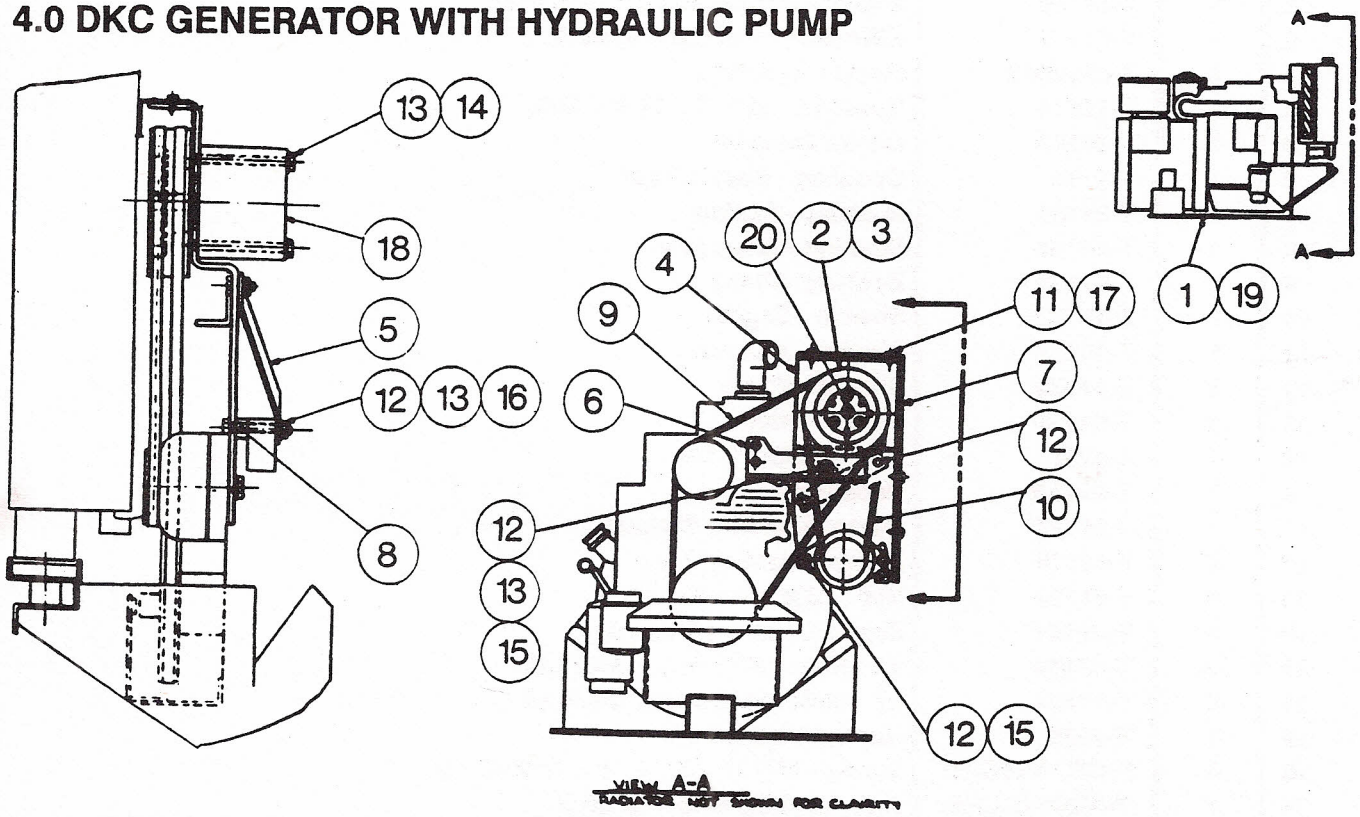
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-61148	Engine - Kawasaki 8.5 H.P.
2	1	T-61147	Alternator - 115 V AC 2250 W
3	1	T-62228F2	Pump - Hydraulic
4	1	T-61143	Choke Actuator
5	1	T-61135	Bushing - Engine
6	1	T-61134	Bushing - Alternator
7	1	T-61133	Bushing - Pump
8	1	T-61132	Sheave - Engine
9	1	T-61131	Sheave - Alternator
10	1	T-61130	Sheave - Pump
11	1	T-61129	V-Belt - Drive (2 belts for KF-82)
12	1	T-61124	Base Plate
13	1	T-61127	Pump Mounting Bracket
14	1	T-61125	Pump Mounting Plate
15	4	T-61139	Nut - Alternator Mounting
16	1	T-61169	Bracket - Choke Mounting
17	1	T-61153	Spring - Choke Return
18	1	T-17555	Junction Box
19	1	T-67053	Bar - Choke Extension
20	1	T-67723	Bracket Mounting Junction Box
21	1	T-63800	Ell - Male 1/2 O-ring x 3/4 FL37
22	1	T-11774	Ell - Male 3/8 O-ring x 3/8 FL37
23	4	H-SC74-06C-14	Screw - HX HD CAP 3/8 - 16 UNC x 1 1/2 GR5
24	4	H-NE01-06C-R5	Nut - Locking 3/8 - 16 UNC GR5
25	10	H-SC74-06C-06	Screw - HX HD CAP 3/8 - 16 UNC x 3/4 GR5
26	10	H-WS01-O6O-00	Washer - 3/8 SP LK
27	1	H-WF01-06B-R0	Washer - 3/8 Flat Type B REG
28	2	H-SC74-05C-34	Screw - HX HD CAP 5/16 - 18 UNC x 3/4 GR5
29	2	H-WS01-050-00	Washer - 5/16 SP LK
30	11	H-SC74-04C-06	Screw - HX HD CAP 1/4 - 20 UNC x 3/4 GR5
31	4	H-WS01-040-00	Washer - 1/4 SP LK
32	10	H-WF01-04B-R0	Washer - 1/4 Flat Type B REG
33	9	H-NE01-04C-R5	Nut - Locking 1/4 - 20 UNC GR5
34	3	H-SA83-04C-12	Screw - Cap SH (ALLEN) 1/4 - 20 x 1 1/4
35	2	H-SR83-OFC-04	Screw - RD HD #6 - 32 UNC x 1/2
36	2	H-NE01-OFC-R5	Nut - Locking #6 - 32 UNC
37	1	T-67120	Mod - Arm Choke Actuator
38	1	T-2156	Key 3/16 SQ x 1 1/4
39	1	T-2401	Hose Barb
40	1	T-66405	Key - .125 SQ x 1.0 LG
41	1	T-66962	Decal - APU Alternator
42	1	T-66715	Belt - Drive
43	1	T-65259	Relay - 12 V Spdt with Bracket
44	1	H-WT01-0HA-00	Washer - Int Star #8-32 CZ A
45	1	H-NH01-0HC-R5	Nut - Hex Head #8-32
46	1	H-SP83-0HC-08	Screw - PH #8-32 x 1/2 LG
47	1	T-61881	Weldment - Exhaust Adapter
48	1	T-15199	Ell - ST 90 degrees 1" NPT
49	1	T-61096	Coupling
50	1	T-67724	Bracket - Mounting Electric Fuel Pump
51	1	T-61433	Fuel Pump
52	1	T-18094	Check Valve
53	1	T-18095	Hose Barb
54	1'	T-11636	Hose - 5/16 Fuel
55	1'	T-61999F6	Loom

ASSEMBLY A.P.U. - BRIGGS AND STRATTON T-61141



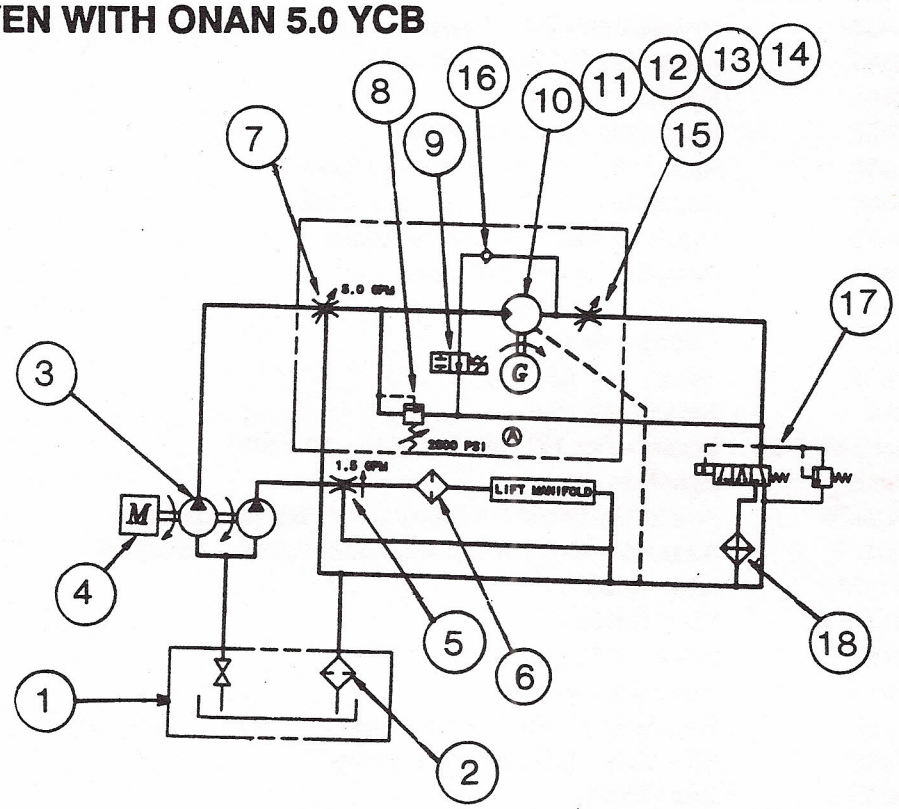
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	1	T-61149	Engine - Briggs and Stratton 8 HP
2	1	T-61147	Alternator - 115 V AC 2250 W
3	1	T-62228F2	Pump - Hydraulic
4	1	T-12514	Solenoid - 12 V DC CONT Duty
5	1	T-61143	Choke Actuator
6	1	T-2155	Coupling - Bead Chain
7	1	T-61135	Bushing - Engine
8	1	T-61134	Bushing - Alternator
9	1	T-61133	Bushing - Pump
10	1	T-61132	Sheave - Engine
11	1	T-61131	Sheave - Alternator
12	1	T-61130	Sheave - Pump
13	2	T-61129	V-Belt - Drive
14	1	T-2237	Key 1/4 SQ x 1 1/4
15	1	T-61124	Base Plate
16	1	T-61127	Pump Mounting Bracket
17	1	T-61125	Pump Mounting Plate
18	4	T-61139	Nut - Alternator Mounting
19	1	T-61151	Bracket - Choke Mounting
20	1	T-63800	Ell - Male 1/2 O-ring x 3/4 FL37
21	1	T-11774	Ell - Male 3/8 O-ring x 3/8 FL37
22	1	T-2156	Key 3/16 SQ x 1 1/4
23	4	H-SC74-05C-30	Screw - HX HD CAP 5/16 - 18 UNC x 3
24	4	H-NE01-05C-R5	Nut - Locking 5/16 - 18 UNC
25	4	H-SC74-05F-06	Screw - HX HD CAP 5/16 - 24 UNF x 3/4
26	8	H-WS01-O5O-00	Washer - 5/16 SP LK
27	2	H-SC74-06C-10	Screw - HX HD CAP 3/8 - 16 UNC x 1
28	2	H-WS01-060-00	Washer - 3/8 SP LK
29	1	H-WF01-06B-R0	Washer - Flat 3/8 Type B REG
30	2	H-SC74-05C-34	Screw HX HD CAP 5/16 - 18 UNC x 3 1/2
31	8	H-SC74-04C-06	Screw - HX HD CAP 1/4 - 20 UNC x 3/4 GR5
32	8	H-WF01-04B-R0	Washer - 1/4 Flat Type B REG
33	8	H-WS01-040-00	Washer - 1/4 SP LK
34	3	H-SA83-04C-12	Screw - Cap SH (ALLEN) 1/4 - 20 x 1 1/4
35	1	T-61898	Seat - Needle Valve
36	1	T-61153	Spring - Choke Return
37	1	H-SC74-04C-04	Screw - HX HD CAP 1/4 - 20 UNC x 1/2
38	3	H-NE01-04C-R5	Nut - Locking 1/4 - 20 NC GR5
39	1	H-SR83-ODC-03	Screw - RD HD #4 - 40 UNC x 3/8
40	1	H-NE01-0DC-R5	NUT Locking #4 - 40 UNC
41	1	T-66405	Key - .125 SQ x 1.0 LG
42	1	T-17555	Box Junction
43	7	T-67766	Tab - Straight Modified
44	1	T-7861	Decal - Caution Energized Circuits
45	1	T-67723	Bracket Mounting Junction
46	4	T-61493	Isolator
47	4	H-SC74-06C-06	Screw- Hex Head Cap 3/8 - 16 UNC x 3/4 LG Grade 5
48	1	T-63378	Assembly Generator Field Diode
49	1	T-61096	Coupling
50	1	PB-135	Term - Spade #10 Stud
51	1	T-67966	Wire List
52	1	T-66962	APU Alternator Decal

4.0 DKC GENERATOR WITH HYDRAULIC PUMP



ITEM #	QTY #	TELSTA PART #	DESCRIPTION
REF		T-64582F1	DKC Single Phase with Hydraulic Pump Assembly
REF		T-64582F2	DKC Three Phase with Hydraulic Pump Assembly
1	1	T-64481	Specification, Onan 4.0 DKC Single Phase
		T-64467	Specification, Onan 4.0 DKC Three Phase
2	1	T-64599	Pump Sheave, Onan 4.0 DKC
3	1	T-61133	Pump Bushing Drive
4	1	T-64725	Pump Mounting Plate Weldment
5	1	T-64587	Mounting Plate Brace
6	1	T-64588	Adjustment Mounting Bracket
7	1	T-64589	Fanbelt Guard
8	1	T-64586	Mount-Pump Spacer
9	1	T-64584	DKC Pump Drive Belt
10	1	T-64583	DKC Alt. Drive Belt
11	4	H-SZ83-0KM-04	Tek Screw #10 x 1/2
12	4	H-NE01-05C-R5	Esna Nut 5/16 - 18 UNC
13	6	H-WF01-05A-R0	Flat Washer 5/16
14	2	H-SH83-05C-32	Hex Head Screw 5/16 - 18 UNC x 3 1/4 Long
15	2	H-SC74-05C-12	Hex Head Screw 5/16 - 18 UNC x 1 1/4 Long
16	1	H-SC74-05C-26	Hex Head Screw 5/16 - 18 UNC x 2 3/4 Long
17	3	H-WV01-0KB-00	Int-Ext Star Washer #10
18	1	T-62228F3	Hydraulic Pump
19	1	T-64467	Specification, Onan 4.0 DKC Three Phase
20	1	T-66405	Square Key .125 x 1.0 Long
21	1	T-72690	Onan DKC Manual
22	1	T-72691	Kubota DKC Manual
	REF	T-69856	Oil Filter
	REF	T-69857	Fuel Filter
	REF	T-69858	Air Filter

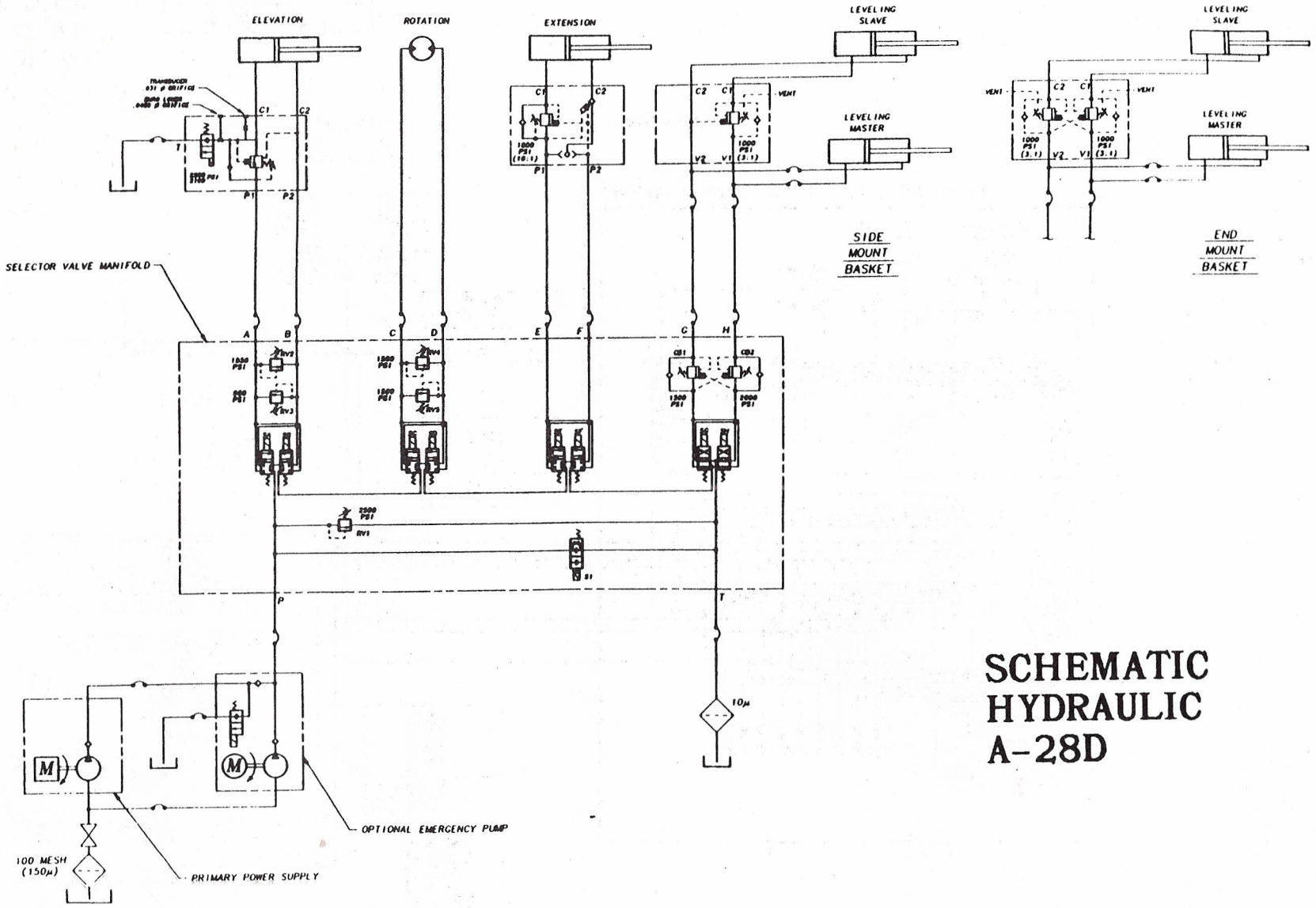
PTO DRIVEN WITH ONAN 5.0 YCB



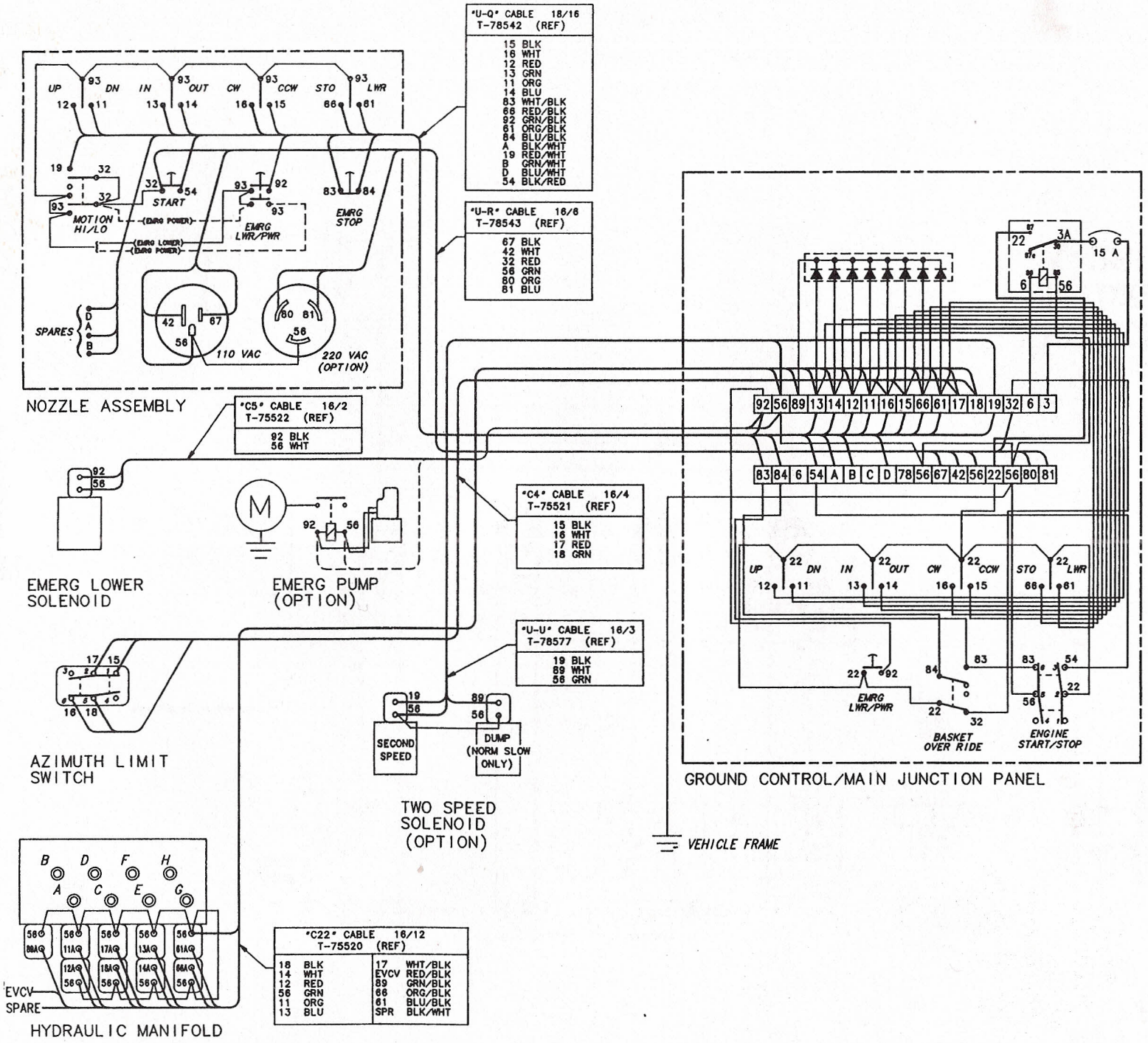
ITEM #	QTY #	TELSTA PART #	DESCRIPTION
1	REF	T-66294	Reservoir Assembly
2	REF	T-19727	Filter Element
3	REF	T-0902314	Pump
4	REF	T-0902313	Power Take-Off
5	REF	T-64699	Flow Control Valve
6	REF	T-66065	Filter Element
7	REF	T-75518	Flow Control Valve
8	REF	T-66068	Relief Valve
9	REF	T-67155	Shut-off Valve
10	REF	T-67952	Motor
11	REF	T-0902477	Generator
12	REF	T-63457	Coupling Half
13	REF	T-67929	Coupling Half
14	REF	T-63459	Coupling Insert
15	REF	T-64384	Flow Control Valve
16	REF	T-64405	Check Valve
17	REF	T-64617	Thermal By-pass Valve
18	REF	T-64616	Oil Cooler

INSTALLATION - D.C. POWER

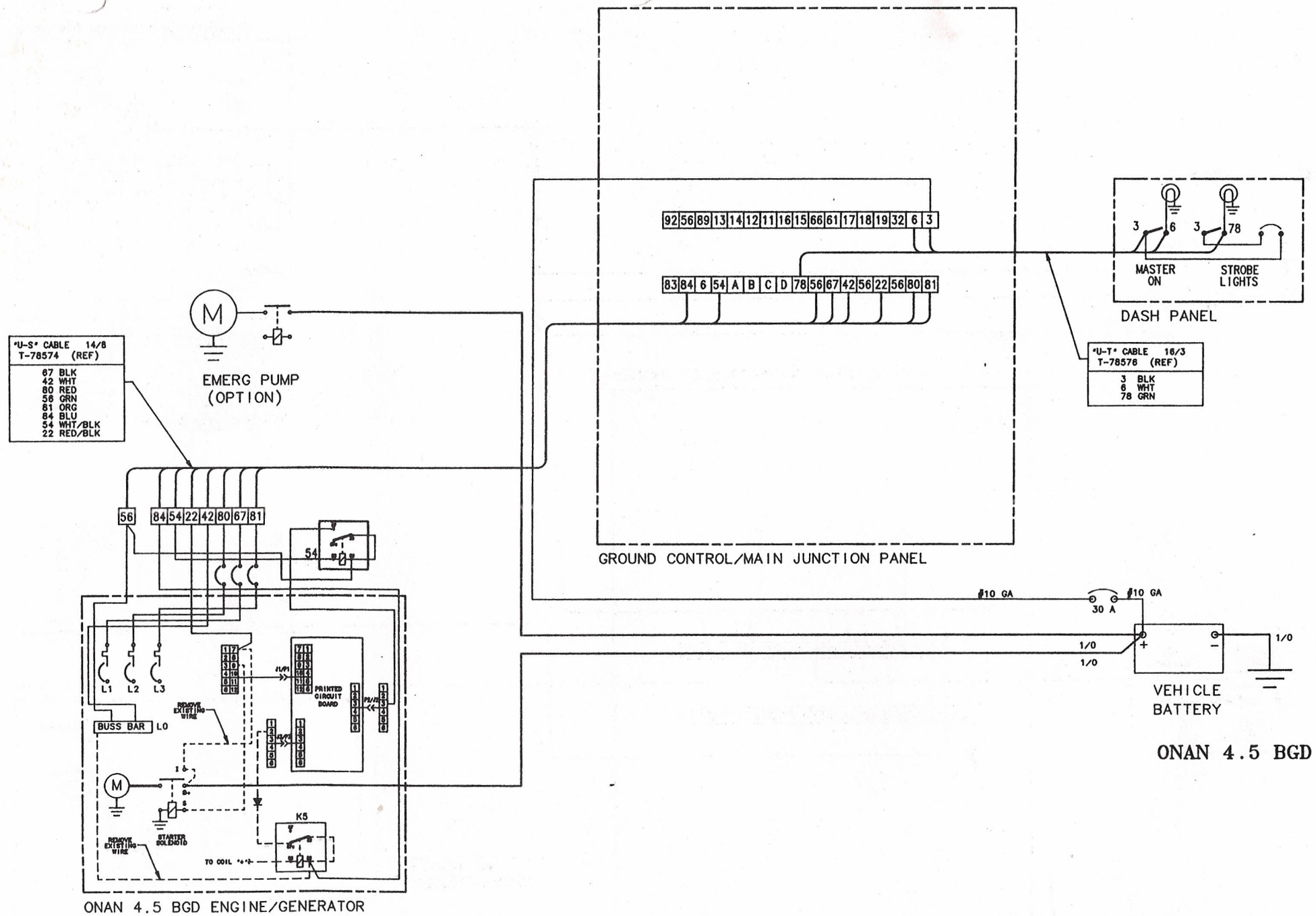
REF		
	T-76595F	Installation - D.C. Power
1	T-66546	Assembly DC Pump/Motor
1	T-66545	Battery - 12 Volt DC
1	T-66458	Assembly - Battery Holder
1	T-66538	Assembly - Positive Battery Cable
1	T-66539	Assembly - Negative Battery Cable
1	T-12499	Conn - Barbed Swivel 1/4" Hose
1	T-12891	Adapter Female Bulkhead 1/4"
1	T-1787	Ell - Street 1/8" NPT Brass
2	T-1515	Clamp - Hose
6'	T-12498	Hose - 1/4" Air
2	T-1032	Strap - 1/2" Pipe
2	H-SQ83-0KF-03	Screw - Pan HD Self Tap #10 - 32 x 3/8"
1	T-17555	Junction Box
1	T-76225F6	Assembly Ground Control Panel Gravity Leveling
	T76225F5	Assembly Ground Control Panel Positive Leveling
1	T-76141F1	"C-9" Cable
1	T-76140F1	"C-1" Cable
7'	T-63797	Hose - 3/4' Suction
1	T-60053	Hose Assembly
1	T-63794	Ell - Male 3/4 FL37 x 3/4 O-ring
1	T-16468	Ell - Male 1/2 FL 37 x 1/2 O-ring
6	T-60037	Cord Fitting
6	T-60038	Locknut
6	T-60272	Sealing Washer
1	T-60047	Plate - G.C.P. Mounting
	T-60034	Plate - G.C.P. Mounting
8	H-SC74-04C-04	Screw Hex Head Cap 1/4 - 20 x 1/2"
4	H-NL01-04C-R5	Nut - Hex Lock 1/4 - 20
4	H-SZ83-04C-06	Screw - Hex Head Self Drill 1/4 - 14 x 3/4
8	H-WS01-040-00	Washer - SP Lock 1/4"
1	T-2472	Bungee Cord
2	T-63796	Coupling - 3/4" Hose x FFL37
2	T-1294	Clamp - Worm Drive
1	T-17747	Circuit Breaker 30 A Auto Reset
1	T-14276	Solenoid - Constant Duty
1	T-76221	"C-10" Cable
4	H-SC74-06C-10	Screw - Hex Head Cap 3/8 - 16 x 1
2	H-NL01-06C-R5	Nut - Hex Lock 3/8 - 16
2	H-Wf01-06B-R0	Washer - Flat 3/8 TYPE B REG
2	H-WS01-060-00	Washer - SP Lock 3/8
2	H-SR56-0KF-03	Screw - #10 Self Tapping
2	H-WF01-0KB-W0	Washer - Flat #10 TYPE B Wide
1	T-17338	Reducer - Tube Enb 1/2 FFL 37 x 3/8 FL 37
1	T-76596	Wire List
1	T-76153F4	Wiring Diagram
4	H-SC74-0KC-04	Screw - Hex Head Cap #10 - 24 x 1/2
4	H-NL01-0KC-R5	Nut - Hex Lock #10 -24
1	T-64432	Relay - Time Delay
1	T-65259	Relay - SPDT 12 VDC
1	T-61884F3	Assembly - Forward Deck Plate
1	T-76384	Cover - D.C. Pump
4	T-22179	Nutsert - 1/4 - 20
2	T-60296	Diode - 6 AMP



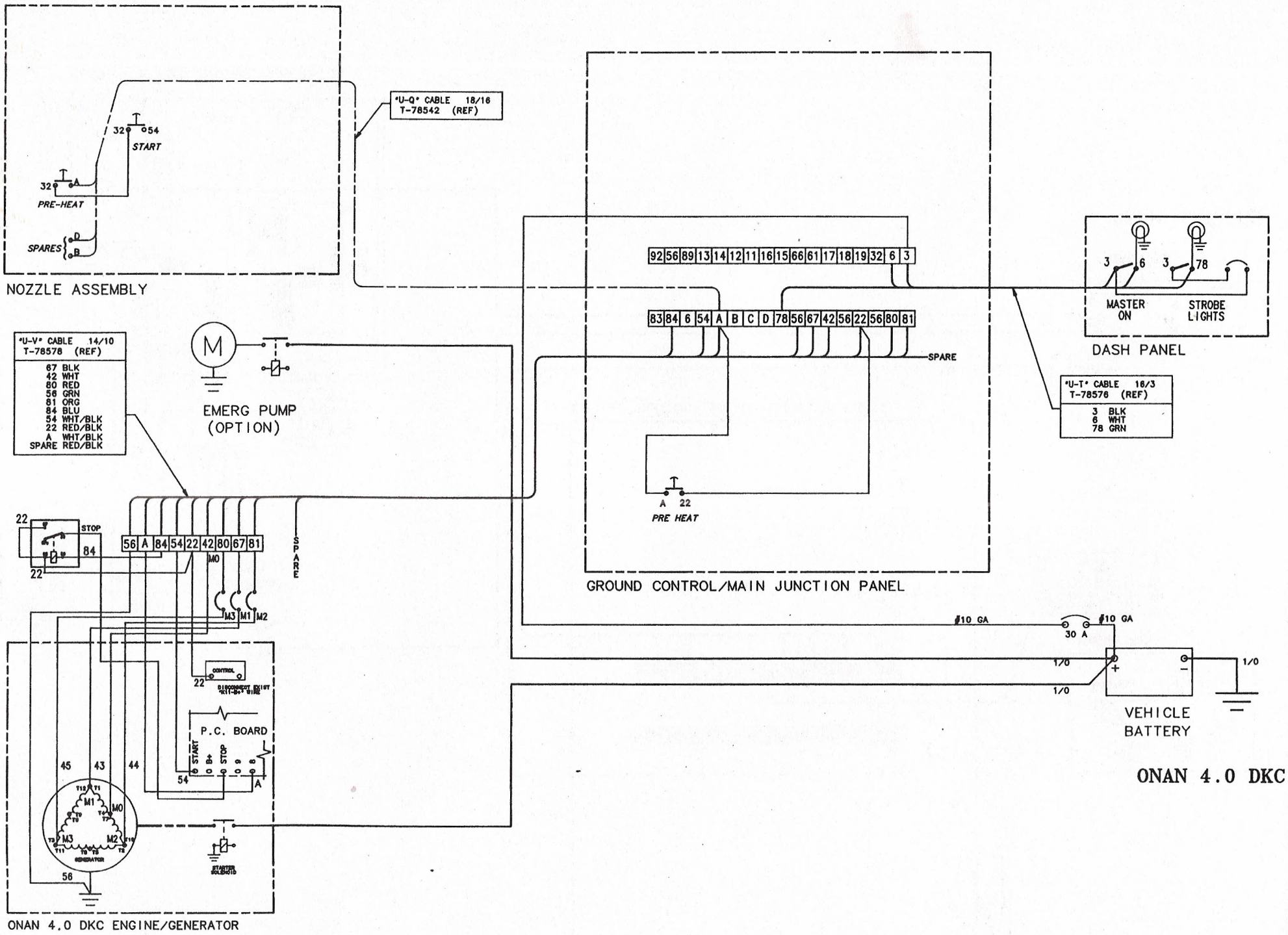
SCHEMATIC HYDRAULIC A-28D

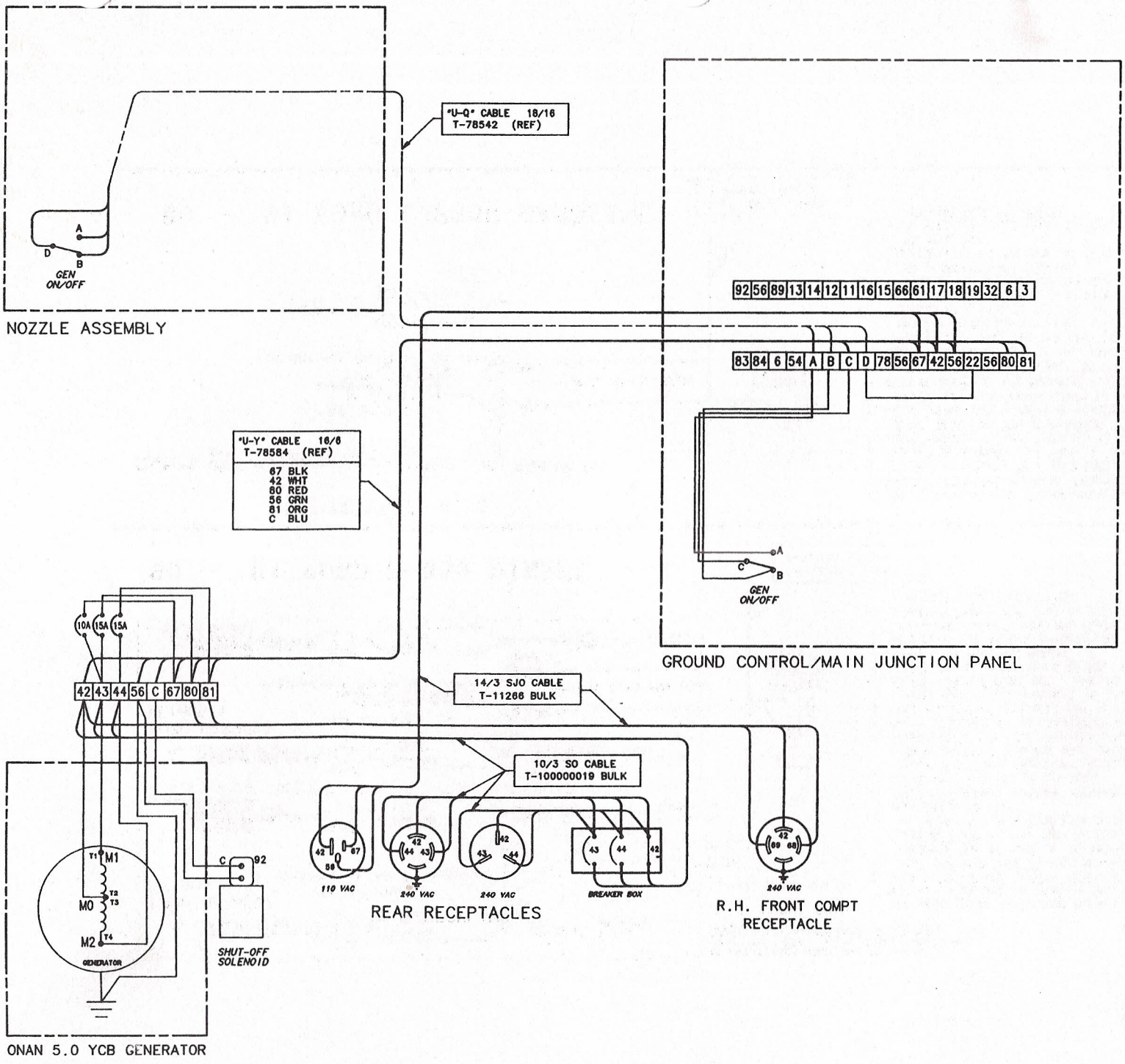

"U-Q" CABLE 18/16
T-78542 (REF)
15 BLK
16 WHT
12 RED
13 GRN
11 ORG
14 BLU
83 WHT/BLK
66 RED/BLK
92 GRN/BLK
61 ORG/BLK
84 BLU/BLK
A BLK/WHT
19 RED/WHT
B GRN/WHT
D BLU/WHT
54 BLK/RED
"U-R" CABLE 16/8
T-78543 (REF)
67 BLK
42 WHT
32 RED
56 GRN
80 ORG
81 BLU
UP DN IN OUT CW CCW STO LWR
MOTION HI/LO
START
EMRG LWR/PWR
EMRG STOP
SPARES
110 VAC
220 VAC (OPTION)
NOZZLE ASSEMBLY
"C5" CABLE 16/2
T-75522 (REF)
92 BLK
56 WHT
"C4" CABLE 16/4
T-75521 (REF)
15 BLK
16 WHT
17 RED
18 GRN
"U-U" CABLE 16/3
T-78577 (REF)
19 BLK
89 WHT
56 GRN
EMERG LOWER SOLENOID
EMERG PUMP (OPTION)
AZIMUTH LIMIT SWITCH
SECOND SPEED
DUMP (NORM SLOW ONLY)
TWO SPEED SOLENOID (OPTION)
92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
UP DN IN OUT CW CCW STO LWR
EMRG LWR/PWR
BASKET OVER RIDE
ENGINE START/STOP
GROUND CONTROL/MAIN JUNCTION PANEL
VEHICLE FRAME
"C22" CABLE 16/12
T-75520 (REF)
18 BLK
14 WHT
12 RED
56 GRN
11 ORG
13 BLU
17 WHT/BLK
EVCV RED/BLK
89 GRN/BLK
66 ORG/BLK
61 BLU/BLK
SPR BLK/WHT
EVCV
SPARE
HYDRAULIC MANIFOLD

LIFT WIRING

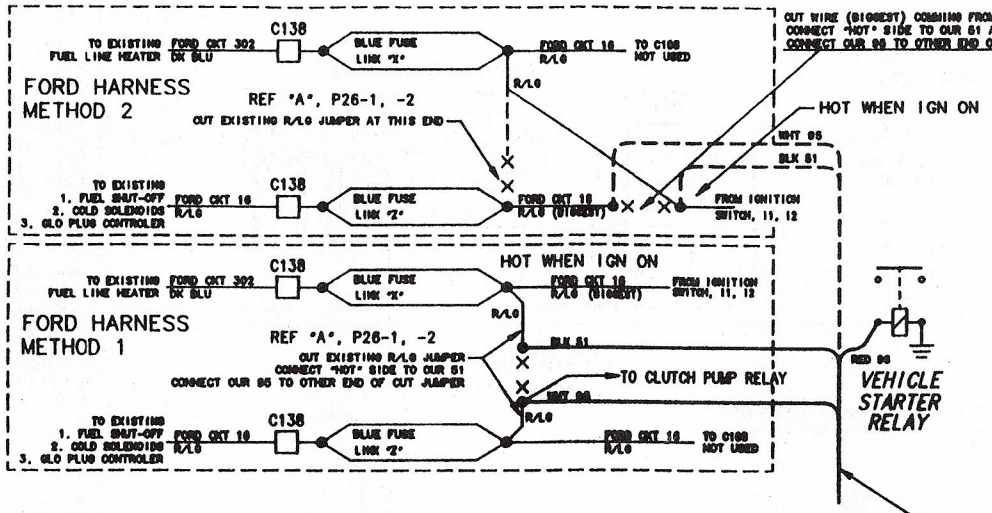

92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
GROUND CONTROL/MAIN JUNCTION PANEL
3 6 3 78
MASTER ON
STROBE LIGHTS
DASH PANEL
"U-T" CABLE 16/3
T-78576 (REF)
3 BLK
6 WHT
78 GRN
EMERG PUMP
(OPTION)
"U-S" CABLE 14/8
T-78574 (REF)
87 BLK
42 WHT
80 RED
56 GRN
81 ORG
84 BLU
54 WHT/BLK
22 RED/BLK
56 84 54 22 42 80 67 81
54
#10 GA
#10 GA
30 A
1/0
1/0
1/0
VEHICLE
BATTERY
L1 L2 L3
BUSS BAR L0
PRINTED CIRCUIT BOARD
REMOVE EXISTING WIRE
STARTER SOLENOID
K5
TO COIL "S"
ONAN 4.5 BGD ENGINE/GENERATOR

ONAN 4.5 BGD


NOZZLE ASSEMBLY
32
54
START
32
A
PRE-HEAT
SPARES
D
B
"U-Q" CABLE 18/16
T-78542 (REF)
92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
SPARE
A 22
PRE HEAT
GROUND CONTROL/MAIN JUNCTION PANEL
3 6 3 78
MASTER ON
STROBE LIGHTS
DASH PANEL
"U-T" CABLE 16/3
T-78576 (REF)
3 BLK
6 WHT
78 GRN
"U-V" CABLE 14/10
T-78576 (REF)
67 BLK
42 WHT
80 RED
56 GRN
81 ORG
84 BLU
54 WHT/BLK
22 RED/BLK
A WHT/BLK
SPARE RED/BLK
M
EMERG PUMP
(OPTION)
22
STOP
84
22
56 A 84 54 22 42 80 67 81
SPARE
M0
M3 M1 M2
#10 GA
#10 GA
30 A
1/0
1/0
1/0
+
-
VEHICLE
BATTERY
CONTROL
22
P.C. BOARD
START
B+
STOP
45 43 44
54
A
M1
M0
M3
M2
56
ONAN 4.0 DKC ENGINE/GENERATOR
ONAN 4.0 DKC



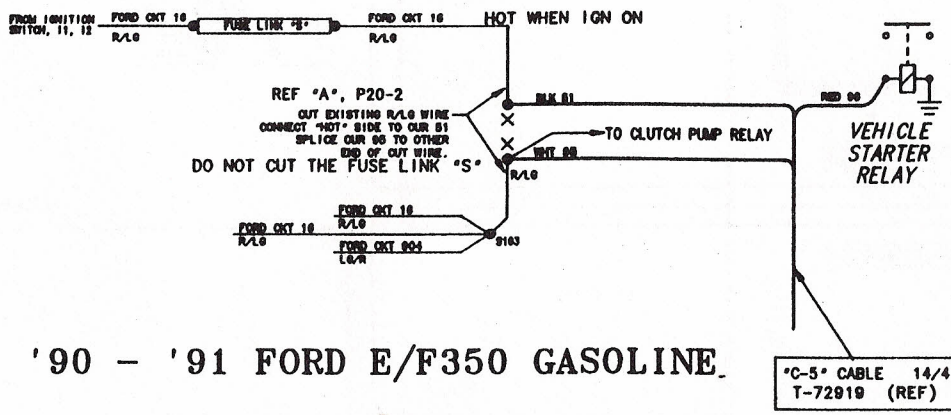
ONAN 5.0 YCB
New Jersey Bell


FORD HARNESS METHOD 2
REF "A", P26-1, -2
CUT EXISTING R/LG JUMPER AT THIS END
C138
BLUE FUSE LINK "1"
BLUE FUSE LINK "2"
HOT WHEN IGN ON
WHT 95
BLK 51
FROM IGNITION SWITCH, I1, I2
FORD HARNESS METHOD 1
CUT EXISTING R/LG JUMPER
CONNECT "HOT" SIDE TO CUR 51
CONNECT CUR 95 TO OTHER END OF CUT JUMPER
TO CLUTCH PUMP RELAY
RED 96
VEHICLE STARTER RELAY
CUT WIRE (BIGGEST) COMING FROM IGNITION SWITCH
CONNECT "HOT" SIDE TO CUR 51 AND END OF CUT JUMPER
CONNECT CUR 95 TO OTHER END OF CUT IGN WIRE
"C-5" CABLE 14/4
T-72919 (REF)

1. REF "ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL", FORD FPS-12128-90, F350 et al.
2. REGARDLESS OF HOW HARNESS IS WIRED, THE CORRECT CONNECTIONS ARE:
   -CUT IGNITION WIRE TO FUEL SHUT-OFF et. al., BUT NOT TO FUEL HEATER.
   -CONNECT CUR 51 "IGN IN" TO THE HOT SIDE OF THE IGNITION WIRE.
   -CONNECT CUR 95 "IGN OUT" TO FUEL SHUT-OFF END OF IGNITION WIRE.
   •• DO NOT CUT BLUE FUSE LINK WIRES!!
3. CONNECTION TO START
   -REMOVE (UNSNAP) EXISTING TERMINAL FROM START POST ON RELAY
   -TERMINATE CUR CKT 96 w/T-1092
   -CONNECT TERMINAL UNDER NUT ON RELAY POST.
   -PRESS EXISTING TERMINAL BACK ONTO POST.
4. TERMINATE 56 w/T-1092; CONNECT TERMINAL UNDER SIDE MOUNTING SCREW.
5. ROUTE AS NECESSARY TO MAIN JUNCTION PANEL ON LIFT.
6. MUST PUNCH HOLE, USE BULKHEAD FITTING (T-14676, T-2336, T-1027) TO ROUTE C-3 THROUGH FIREWALL TO CAB.
7. SPLICE IGNITION/ACCESSORY, PARKING BRAKE WIRES IN HANDIEST LOCATION.
8. TERMINATE ALL WIRES GOING TO THE PC BOARD PLUGS w/T-72844.
   •• P-4568 WILL NOT WORK!!
9. PC BOARD PLUG HOUSING ORIENTATION:
   -WITH PINS POINTED DOWN AND FLATS TO LEFT, PIN 1 IS AT TOP.
10. TERMINATE WHITE WIRE (B+) IN C-2 w/FLAG TERMINAL (T-68210.) CONNECT TO CB-1 LINE (INPUT) SIDE.

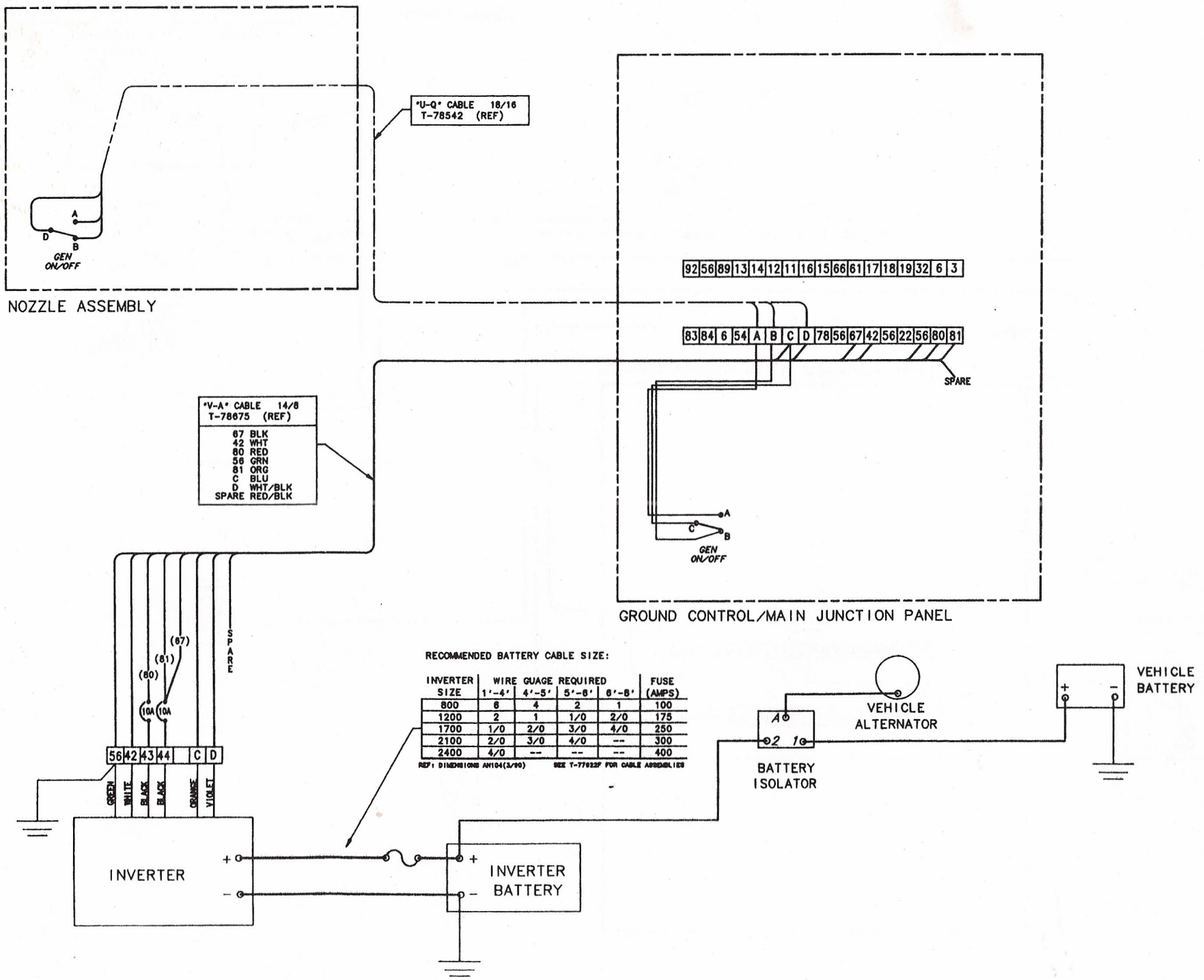
'90 - '91 FORD F-350 DIESEL

SEE NOTES 7, 8, 9

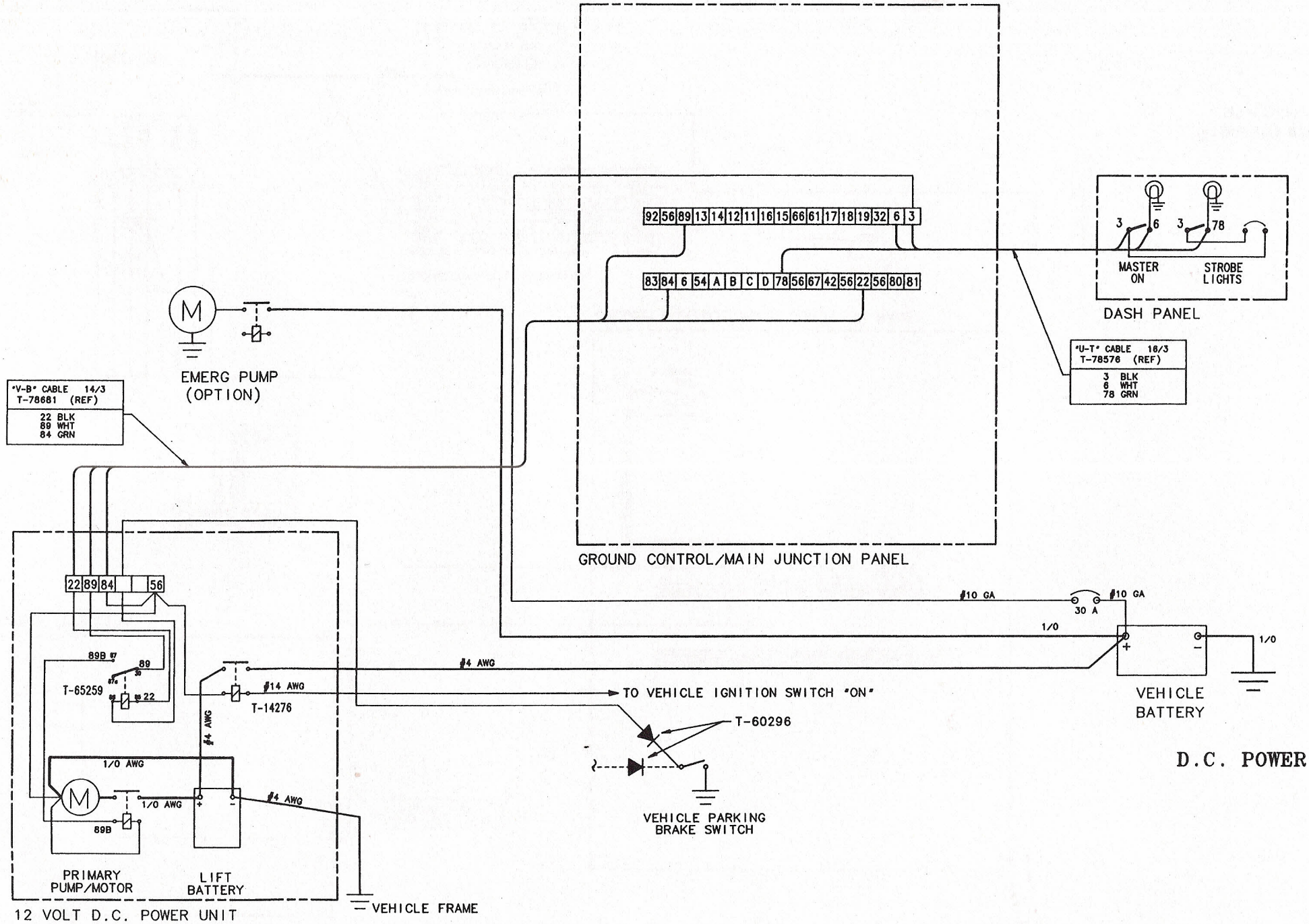


1. REF "ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL", FORD FPS-12128-90, ECONOLINE.
2. C-3 MAY BE CHANGED TO A 16/3 CABLE IF NO SPARES ARE DESIRED
3. C-4 MAY BE CHANGED TO A 16/6 IF NO SPARES ARE DESIRED.
4. MOUNT BRACKET T-76328 (PRELIM) TO EXISTING HOLES IN COWLING ABOVE SPARE BATTERY COMPARTMENT. USE 1/4-20 SCREWS AND NUTS.
5. MOUNT SSIGN JBOX T-72911 TO BRACKET USING 10-32 SCREWS AND NUTS. ORIENT BOX WITH WATER-TIGHTS TO FRONT AND RIGHT.
6. MUST PUNCH HOLE, USE BULKHEAD FITTING (T-14676, T-2336, T-1027) TO ROUTE C-3 THROUGH FIREWALL TO CAB.
7. REMOVE HARNESS FROM WIRE WAY. EXPOSE WIRES BY REMOVEING TAPE, STARTING AT TAKE-OUT FOR C105 (REF "C"), AND CONTINUING TO THE LEFT UNTIL FORD SPLICE S103 (REF "A") IS FULLY EXPOSED. CUT THE SINGLE R/LG WIRE TO THE LEFT OF THE SPLICE (S103.)
8. THE W/PK (REF "B") WILL ALSO BE EXPOSED IN THIS SAME (NOTE 7) HARNESS. TO MAKE THE SPLICE, CUT THE WIRE AND USE A BUTT SPLICE--PLEASE DON'T USE A SCOTCH LOCK TERMINAL.
9. AFTER MAKING THE SPLICES, RE-TAPE THE HARNESS AND REPLACE IT IN THE WIRE WAY.
10. TERMINATE ALL WIRES GOING TO THE PC BOARD PLUGS w/T-72844. ••P-4568 WILL NOT WORK!!

'90 - '91 FORD E/F350 GASOLINE



Dimensions
Inverter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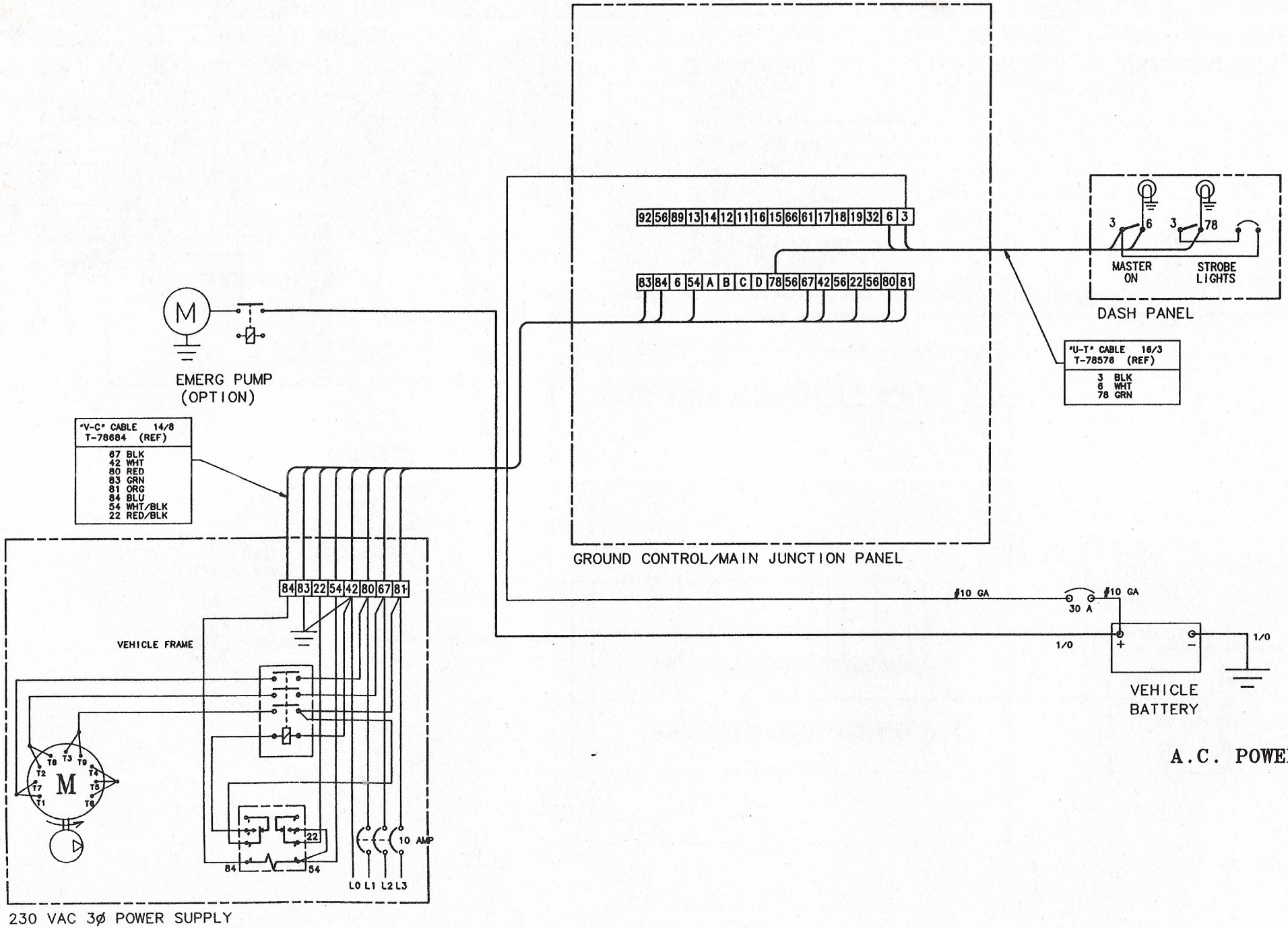
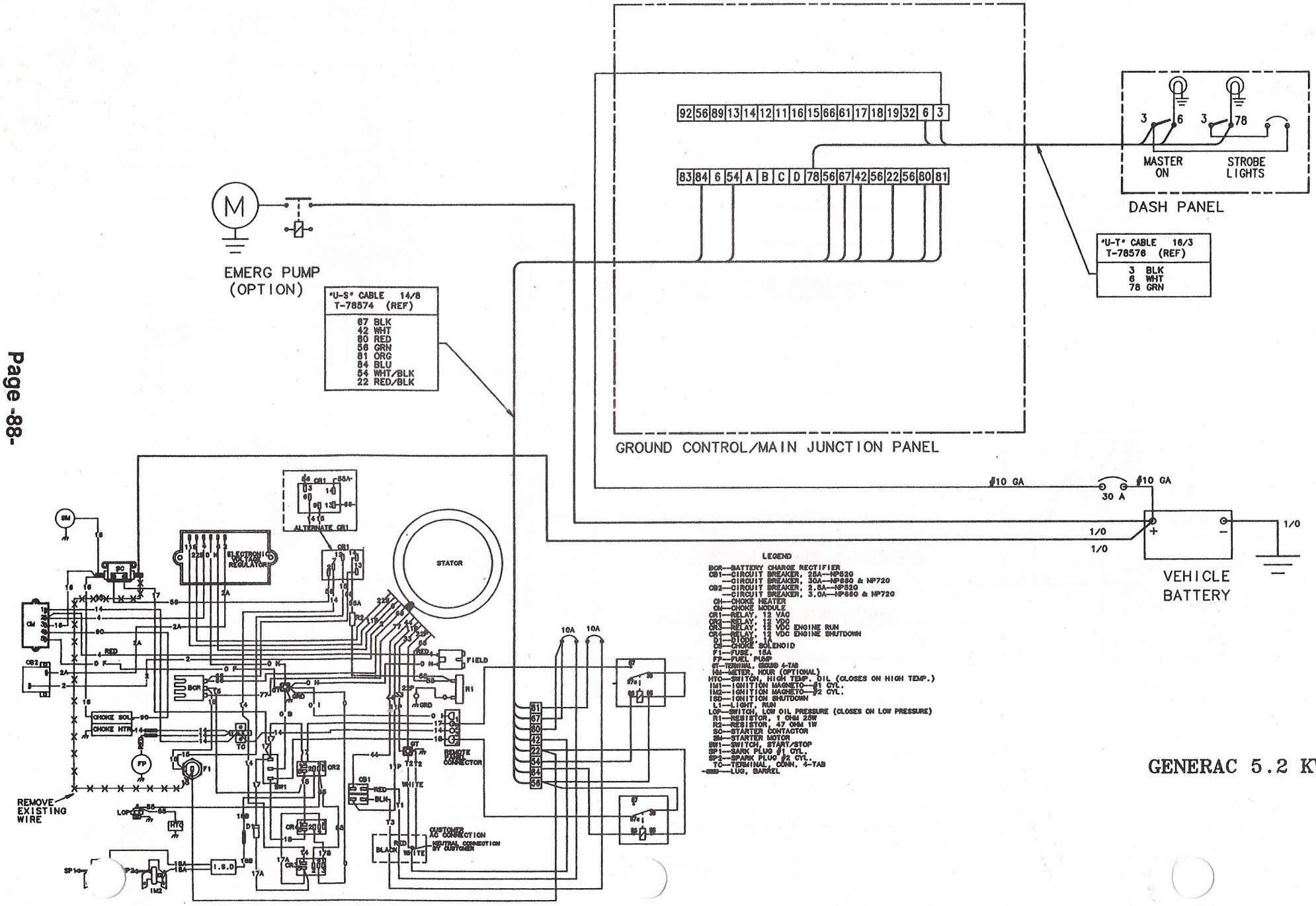
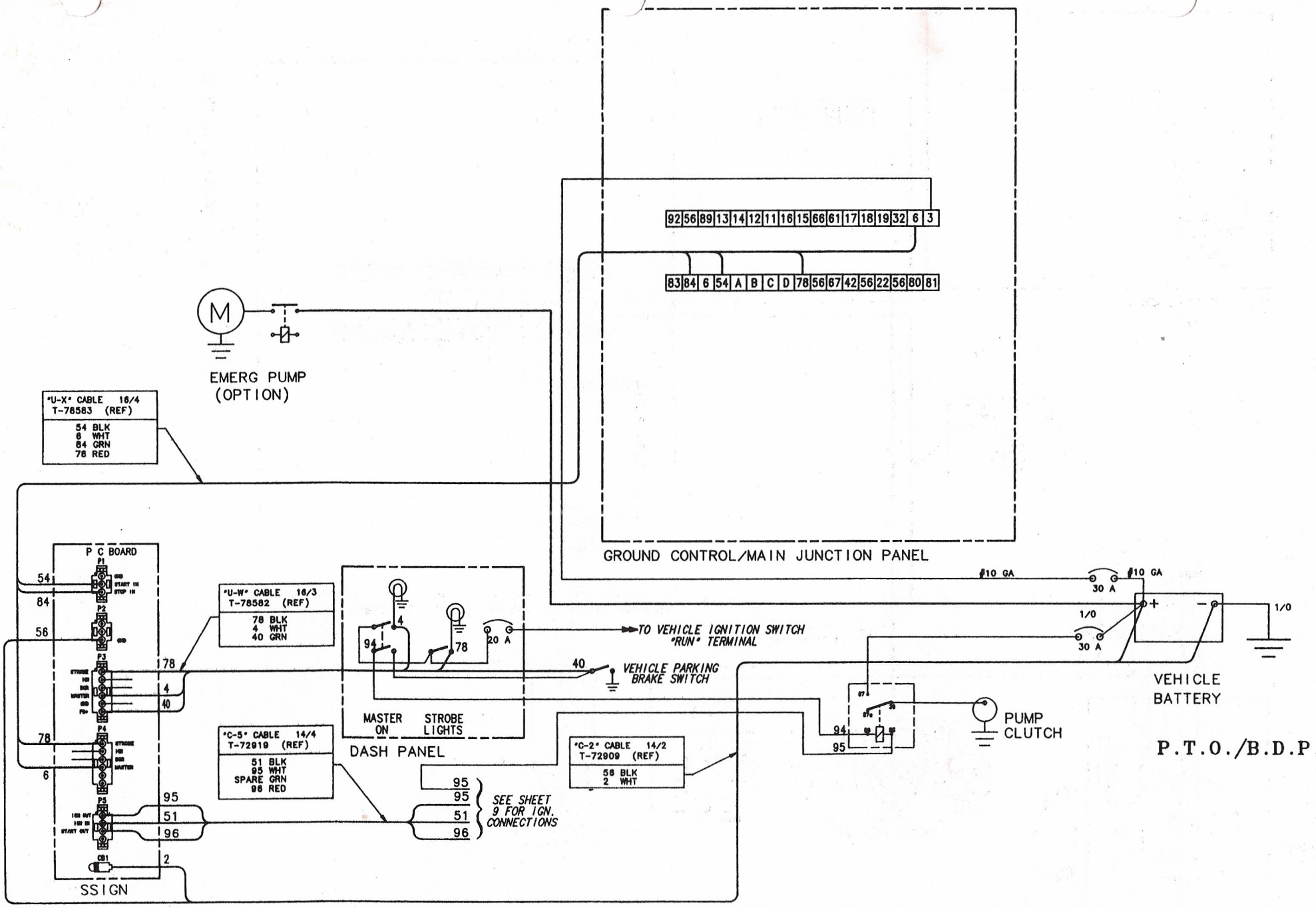
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
GROUND CONTROL/MAIN JUNCTION PANEL
3 6 3 78
MASTER ON
STROBE LIGHTS
DASH PANEL
"U-T" CABLE 16/3
T-78576 (REF)
3 BLK
6 WHT
78 GRN
EMERG PUMP
(OPTION)
"V-B" CABLE 14/3
T-78681 (REF)
22 BLK
89 WHT
84 GRN
22 89 84 56
#10 GA
30 A
#10 GA
1/0
1/0
#4 AWG
#14 AWG
T-14276
TO VEHICLE IGNITION SWITCH "ON"
T-60296
VEHICLE PARKING BRAKE SWITCH
VEHICLE BATTERY
D.C. POWER
89B
89
T-65259
22
#4 AWG
1/0 AWG
1/0 AWG
#4 AWG
89B
PRIMARY PUMP/MOTOR
LIFT BATTERY
12 VOLT D.C. POWER UNIT
VEHICLE FRAME

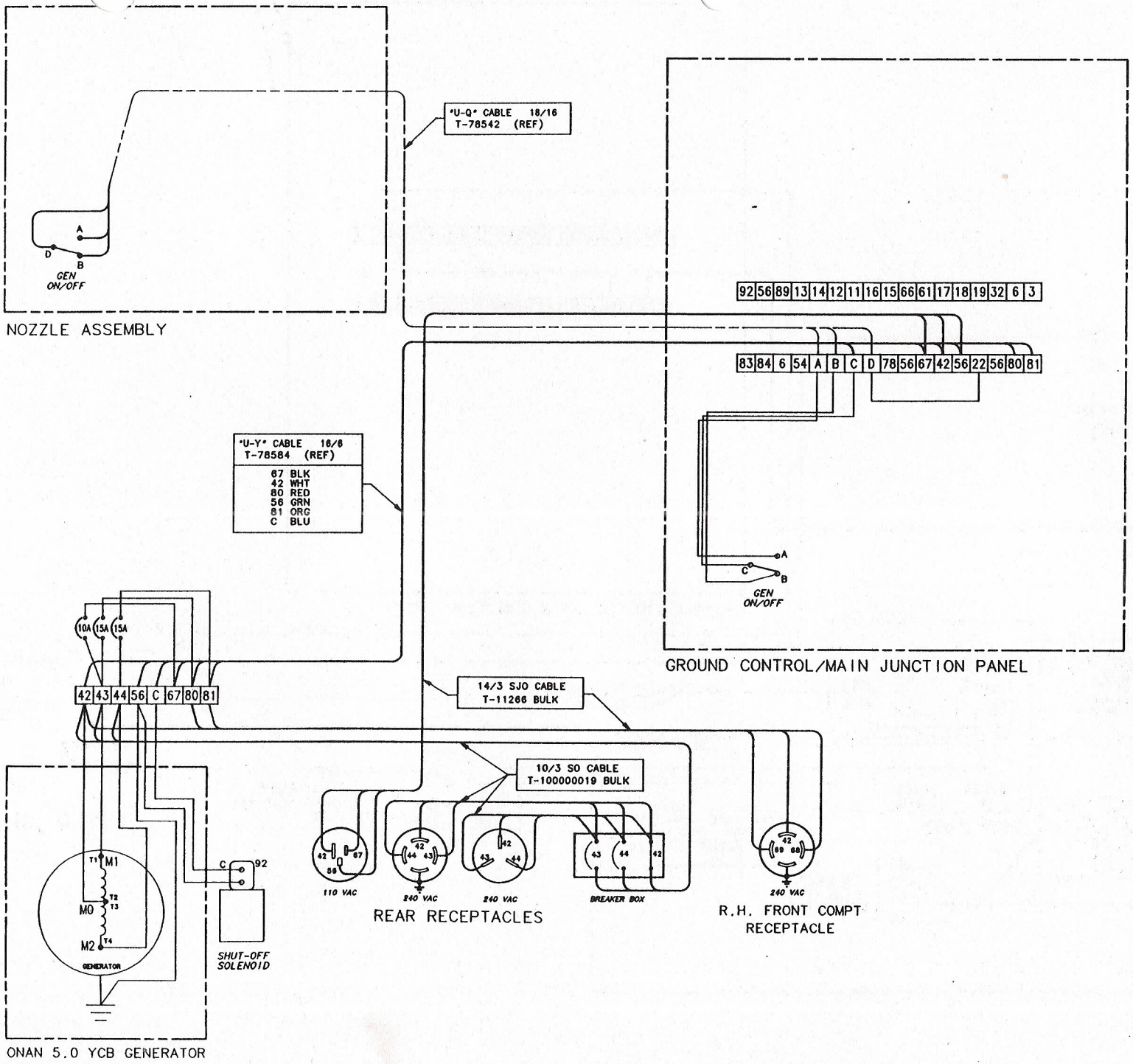

92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
GROUND CONTROL/MAIN JUNCTION PANEL
3 6 3 78
MASTER ON
STROBE LIGHTS
DASH PANEL
"U-T" CABLE 16/3
T-78576 (REF)
3 BLK
6 WHT
78 GRN
M
EMERG PUMP
(OPTION)
"V-C" CABLE 14/8
T-78684 (REF)
67 BLK
42 WHT
80 RED
83 GRN
81 ORG
84 BLU
54 WHT/BLK
22 RED/BLK
84 83 22 54 42 80 67 81
VEHICLE FRAME
#10 GA
30 A
#10 GA
1/0
1/0
+
-
VEHICLE
BATTERY
T1 T2 T3 T4 T5 T6 T7 T8 T9
M
22
84
54
10 AMP
L0 L1 L2 L3
230 VAC 3ø POWER SUPPLY

A.C. POWER

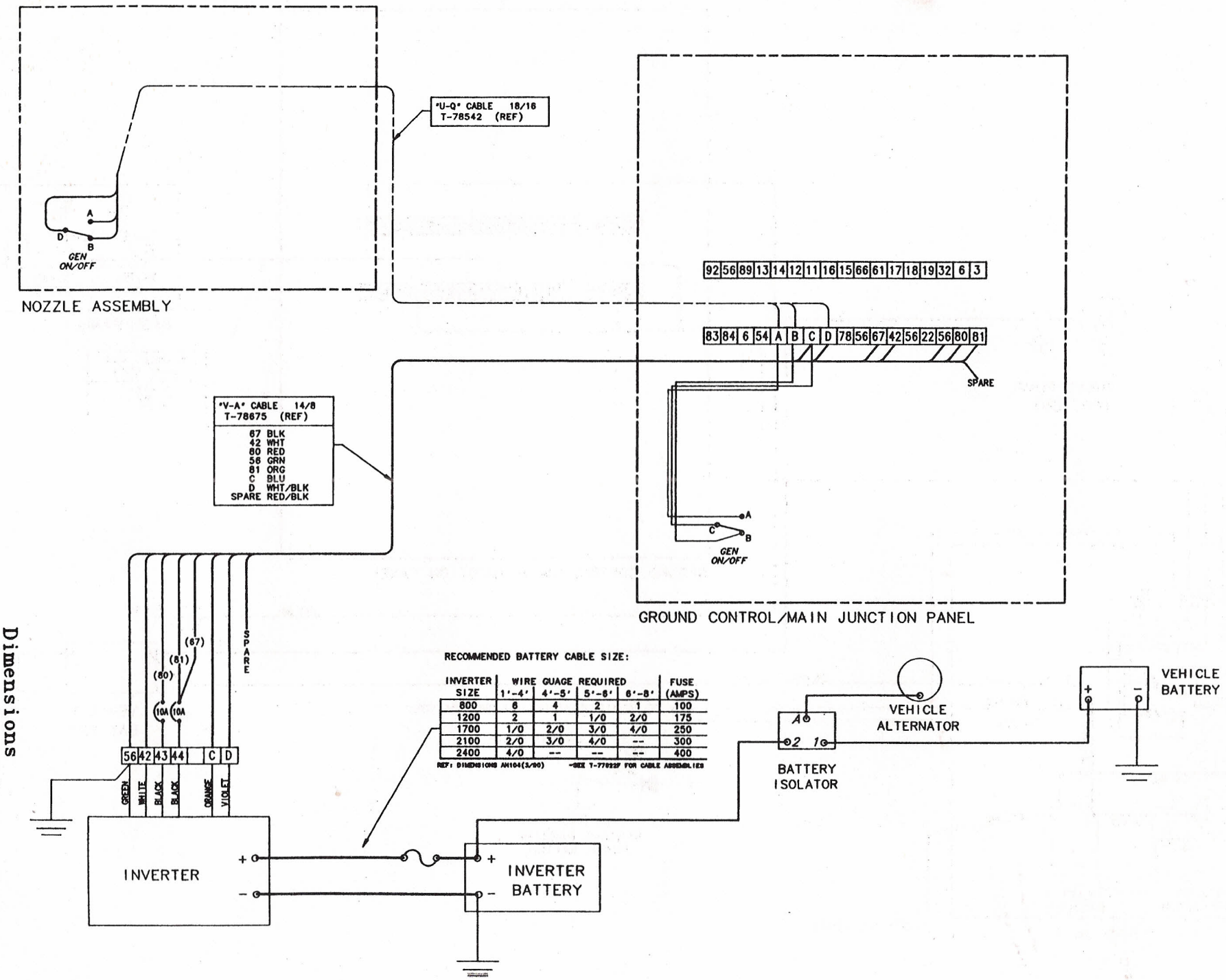


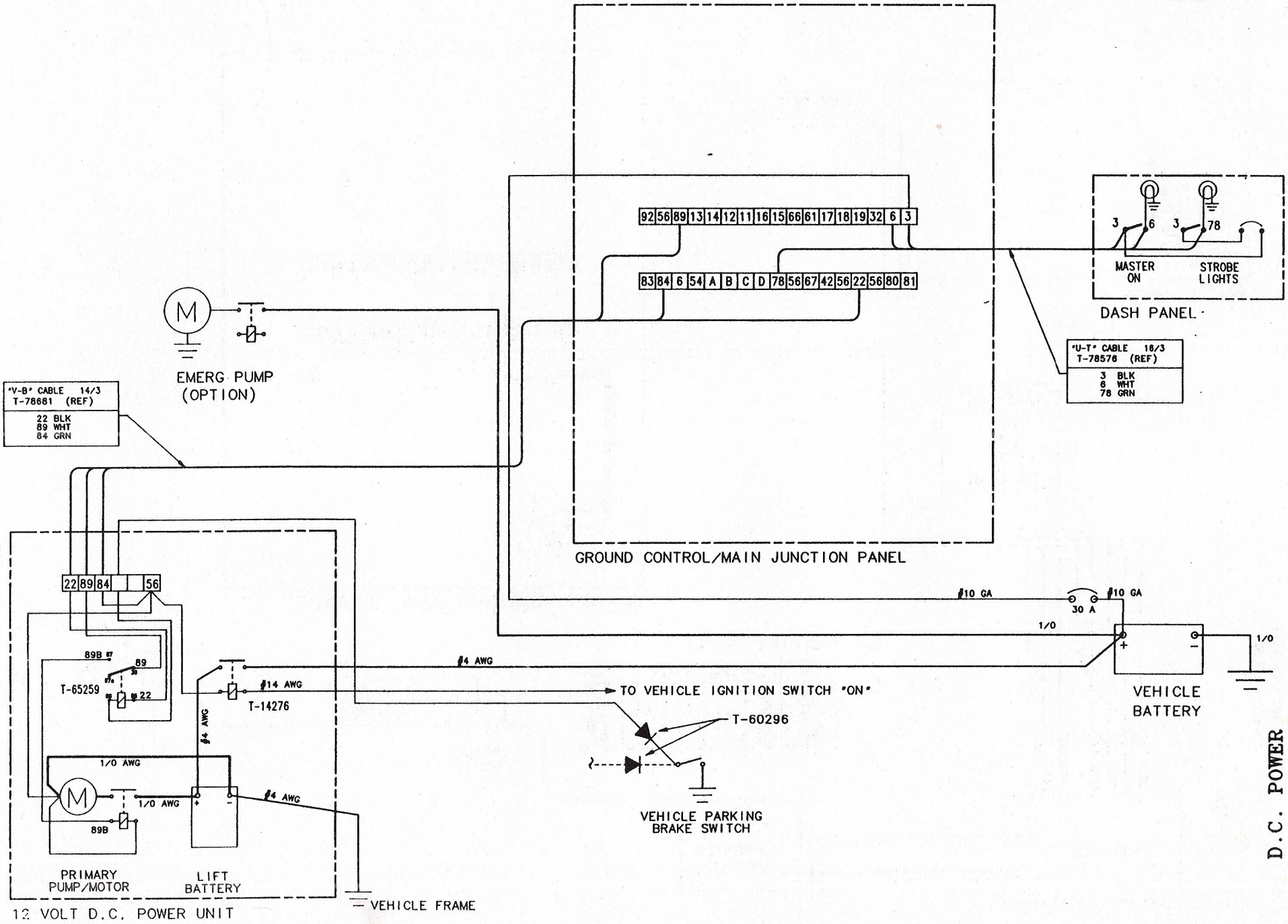
GENERAC 5.2 KW


92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
GROUND CONTROL/MAIN JUNCTION PANEL
M
EMERG PUMP
(OPTION)
"U-X" CABLE 16/4
T-78583 (REF)
54 BLK
6 WHT
84 GRN
78 RED
P C BOARD
P1
P2
P3
P4
P5
CB1
SSIGN
"U-W" CABLE 16/3
T-78582 (REF)
78 BLK
4 WHT
40 GRN
"C-5" CABLE 14/4
T-72919 (REF)
51 BLK
95 WHT
SPARE GRN
96 RED
MASTER ON
STROBE LIGHTS
DASH PANEL
20 A
TO VEHICLE IGNITION SWITCH
"RUN" TERMINAL
VEHICLE PARKING
BRAKE SWITCH
"C-2" CABLE 14/2
T-72909 (REF)
56 BLK
2 WHT
SEE SHEET
9 FOR IGN.
CONNECTIONS
#10 GA
#10 GA
30 A
30 A
1/0
1/0
VEHICLE
BATTERY
PUMP
CLUTCH
P.T.O./B.D.P.

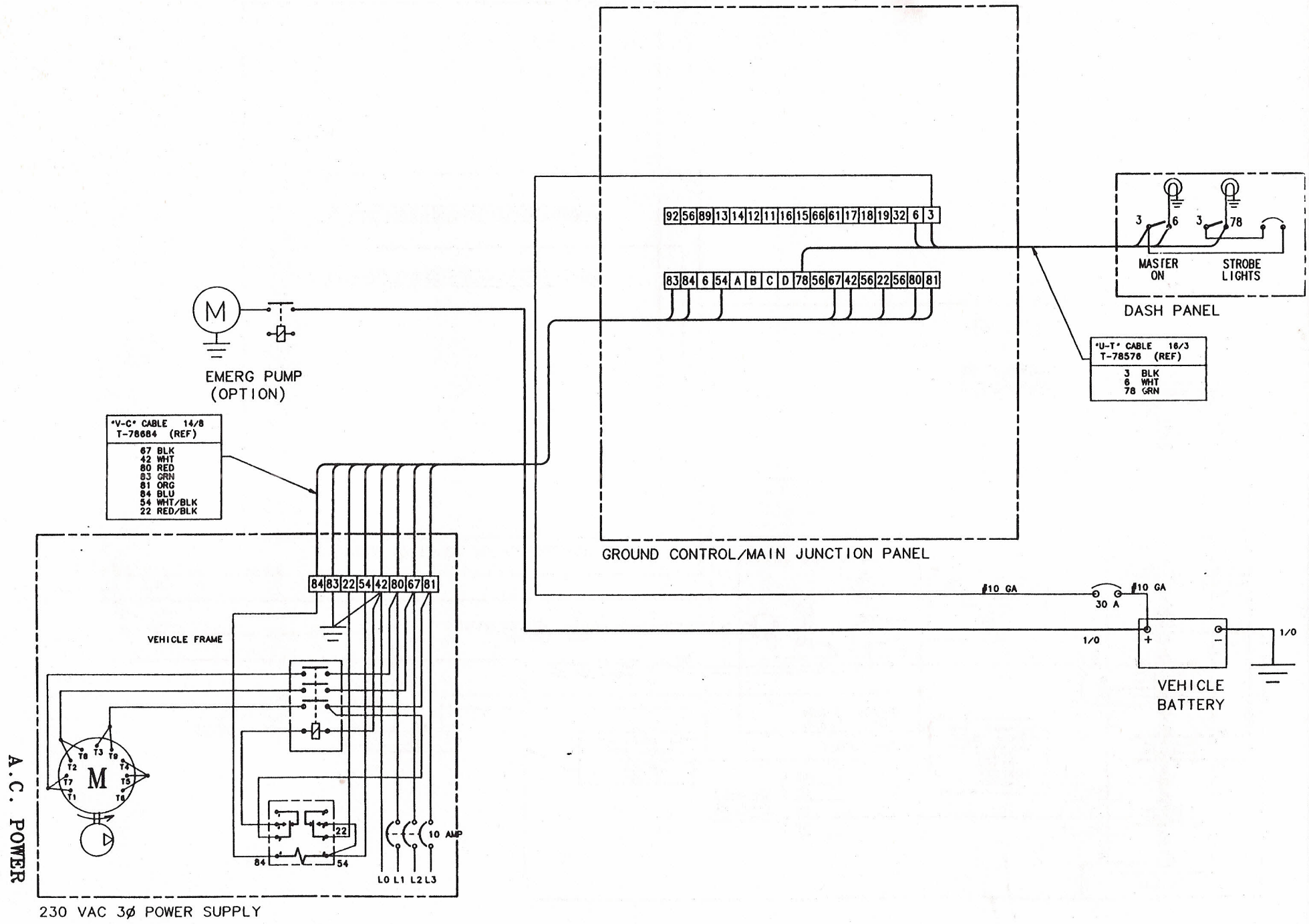

NOZZLE ASSEMBLY
A
D
B
GEN ON/OFF
"U-Q" CABLE 18/16
T-78542 (REF)
92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
A
C
B
GEN ON/OFF
GROUND CONTROL/MAIN JUNCTION PANEL
"U-Y" CABLE 16/6
T-78584 (REF)
67 BLK
42 WHT
80 RED
56 GRN
81 ORG
C BLU
10A
15A
15A
42 43 44 56 C 67 80 81
14/3 SJO CABLE
T-11266 BULK
10/3 SO CABLE
T-100000019 BULK
110 VAC
240 VAC
240 VAC
BREAKER BOX
REAR RECEPTACLES
240 VAC
R.H. FRONT COMPT
RECEPTACLE
T1 M1
M0 T2 T3
M2 T4
GENERATOR
C
92
SHUT-OFF SOLENOID
ONAN 5.0 YCB GENERATOR

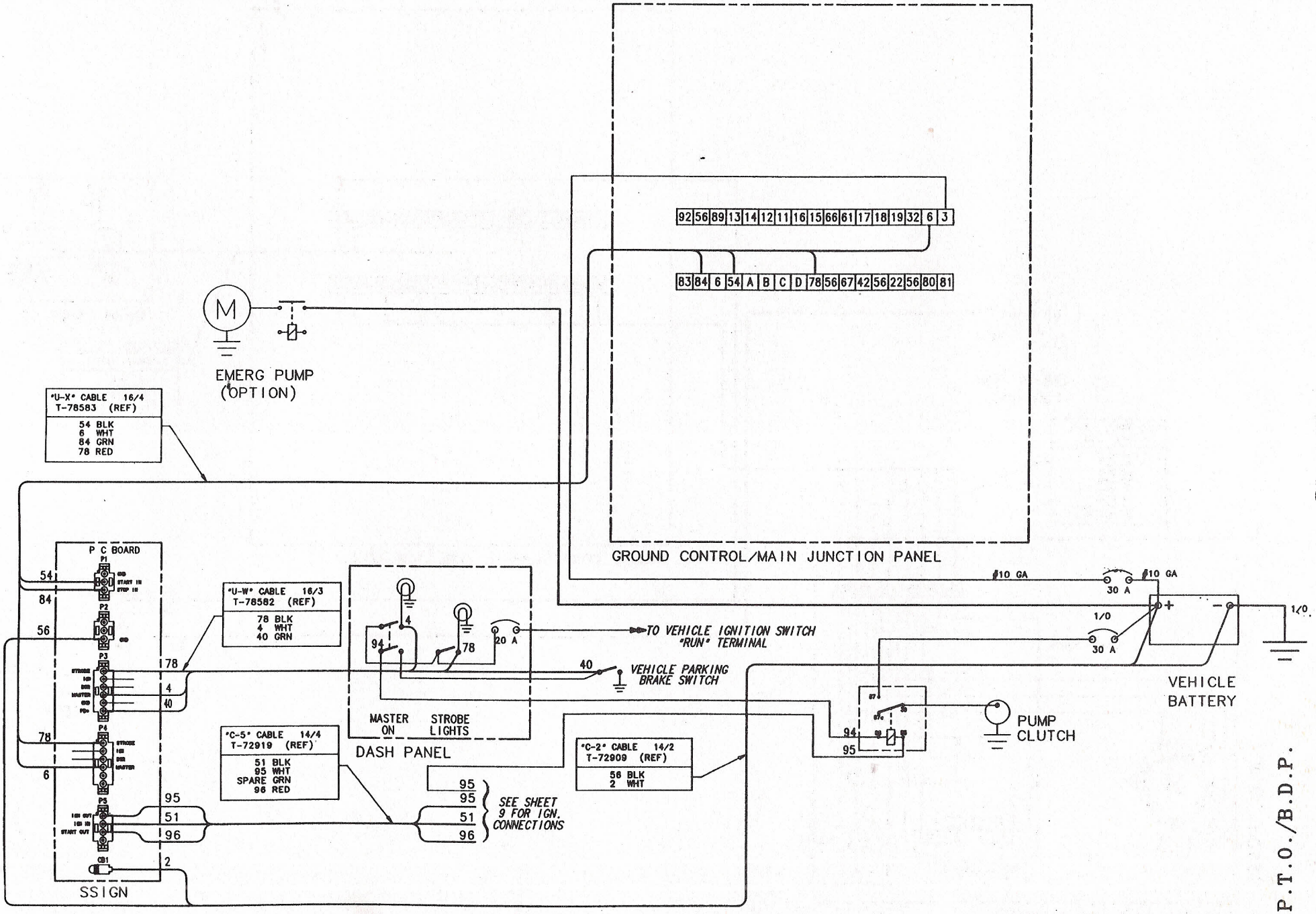
Dimensions
Inverter

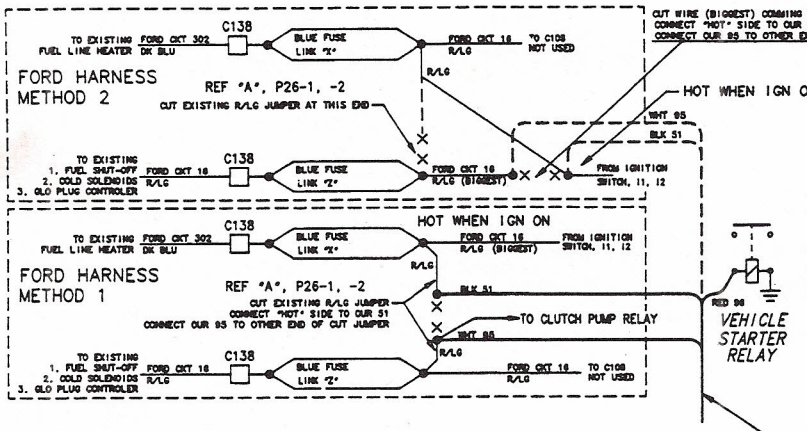



92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
GROUND CONTROL/MAIN JUNCTION PANEL
3 6 3 78
MASTER ON
STROBE LIGHTS
DASH PANEL
"U-T" CABLE 16/3
T-78576 (REF)
3 BLK
6 WHT
78 GRN
M
EMERG PUMP
(OPTION)
"V-B" CABLE 14/3
T-78681 (REF)
22 BLK
89 WHT
84 GRN
22 89 84 56
#10 GA
30 A
#10 GA
1/0
1/0
#4 AWG
#14 AWG
T-14276
T-65259
89B 87
89
87a
86
85
22
TO VEHICLE IGNITION SWITCH "ON"
T-60296
VEHICLE PARKING
BRAKE SWITCH
VEHICLE
BATTERY
1/0 AWG
#4 AWG
1/0 AWG
#4 AWG
89B
PRIMARY
PUMP/MOTOR
LIFT
BATTERY
VEHICLE FRAME
12 VOLT D.C. POWER UNIT

D.C. POWER


92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
3 6 3 78
MASTER ON
STROBE LIGHTS
DASH PANEL
"U-T" CABLE 16/3 T-78576 (REF)
3 BLK
6 WHT
78 GRN
GROUND CONTROL/MAIN JUNCTION PANEL
M
EMERG PUMP (OPTION)
"V-C" CABLE 14/8 T-78684 (REF)
67 BLK
42 WHT
80 RED
83 GRN
81 ORG
84 BLU
54 WHT/BLK
22 RED/BLK
84 83 22 54 42 80 67 81
VEHICLE FRAME
#10 GA
30 A
#10 GA
1/0
1/0
+
-
VEHICLE BATTERY
T8 T3 T9 T2 T4 T7 T5 T1 T6
M
22
84
54
10 AMP
L0 L1 L2 L3
230 VAC 3ø POWER SUPPLY
A.C. POWER

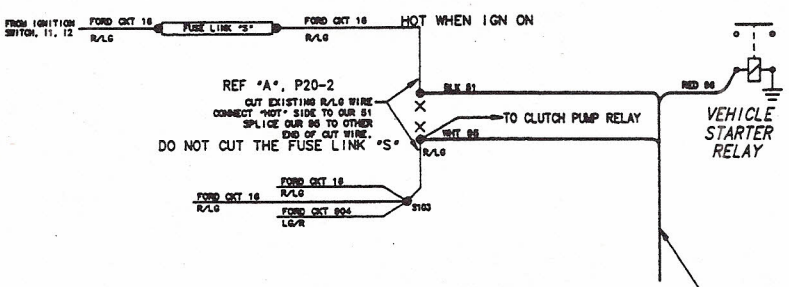

92 56 89 13 14 12 11 16 15 66 61 17 18 19 32 6 3
83 84 6 54 A B C D 78 56 67 42 56 22 56 80 81
GROUND CONTROL/MAIN JUNCTION PANEL
M
EMERG PUMP
(OPTION)
"U-X" CABLE 16/4
T-78583 (REF)
54 BLK
6 WHT
84 GRN
78 RED
P C BOARD
P1
P2
P3
P4
P5
CB1
54
84
56
78
6
95
51
96
2
4
40
SSIGN
"U-W" CABLE 16/3
T-78582 (REF)
78 BLK
4 WHT
40 GRN
"C-5" CABLE 14/4
T-72919 (REF)
51 BLK
95 WHT
SPARE GRN
96 RED
DASH PANEL
MASTER ON
STROBE LIGHTS
20 A
TO VEHICLE IGNITION SWITCH
"RUN" TERMINAL
VEHICLE PARKING
BRAKE SWITCH
SEE SHEET
9 FOR IGN.
CONNECTIONS
"C-2" CABLE 14/2
T-72909 (REF)
56 BLK
2 WHT
#10 GA
#10 GA
30 A
30 A
1/0
1/0
VEHICLE
BATTERY
PUMP
CLUTCH



'90 - '91 FORD F-350 DIESEL

1. REF "ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL", FORD FPS-12129-90, F350 et al.
2. REGARDLESS OF HOW HARNESS IS WIRED, THE CORRECT CONNECTIONS ARE:
   -CUT IGNITION WIRE TO FUEL SHUT-OFF et. al., BUT NOT TO FUEL HEATER.
   -CONNECT OUR 51 "IGN IN" TO THE HOT SIDE OF THE IGNITION WIRE.
   -CONNECT OUR 95 "IGN OUT" TO FUEL SHUT-OFF END OF IGNITION WIRE.
   •• DO NOT CUT BLUE FUSE LINK WIRES!!
3. CONNECTION TO START
   -REMOVE (UNSNAP) EXISTING TERMINAL FROM START POST ON RELAY
   -TERMINATE OUR CKT 96 w/T-1092
   -CONNECT TERMINAL UNDER NUT ON RELAY POST.
   -PRESS EXISTING TERMINAL BACK ONTO POST.
4. TERMINATE 56 w/T-1092; CONNECT TERMINAL UNDER SIDE MOUNTING SCREW.
5. ROUTE AS NECESSARY TO MAIN JUNCTION PANEL ON LIFT.
6. MUST PUNCH HOLE, USE BULKHEAD FITTING (T-14676, T-2336, T-1027) TO ROUTE C-3 THROUGH FIREWALL TO CAB.
7. SPLICE IGNITION/ACCESSORY, PARKING BRAKE WIRES IN HANDIEST LOCATION.
8. TERMINATE ALL WIRES GOING TO THE PC BOARD PLUGS w/T-72844.
   •• P-4568 WILL NOT WORK!!
9. PC BOARD PLUG HOUSING ORIENTATION:
   -WITH PINS POINTED DOWN AND FLATS TO LEFT, PIN 1 IS AT TOP.
10. TERMINATE WHITE WIRE (B+) IN C-2 w/FLAG TERMINAL (T-68210.) CONNECT TO CB-1 LINE (INPUT) SIDE.

SEE NOTES 7, 8, 9



'90 - '91 FORD E/F350 GASOLINE

1. REF "ELECTRICAL AND VACUUM TROUBLESHOOTING MANUAL", FORD FPS-12128-90, ECONOLINE.
2. C-3 MAY BE CHANGED TO A 16/3 CABLE IF NO SPARES ARE DESIRED
3. C-4 MAY BE CHANGED TO A 16/6 IF NO SPARES ARE DESIRED.
4. MOUNT BRACKET T-76328 (PRELIM) TO EXISTING HOLES IN COWLING ABOVE SPARE BATTERY COMPARTMENT. USE 1/4-20 SCREWS AND NUTS.
5. MOUNT SSIGN JBOX T-72911 TO BRACKET USING 10-32 SCREWS AND NUTS. ORIENT BOX WITH WATER-TIGHTS TO FRONT AND RIGHT.
6. MUST PUNCH HOLE, USE BULKHEAD FITTING (T-14676, T-2336, T-1027) TO ROUTE C-3 THROUGH FIREWALL TO CAB.
7. REMOVE HARNESS FROM WIRE WAY. EXPOSE WIRES BY REMOVEING TAPE, STARTING AT TAKE-OUT FOR C105 (REF "C"), AND CONTINUING TO THE LEFT UNTIL FORD SPLICE S103 (REF "A") IS FULLY EXPOSED. CUT THE SINGLE R/LG WIRE TO THE LEFT OF THE SPLICE (S103.)
8. THE W/PK (REF "B") WILL ALSO BE EXPOSED IN THIS SAME (NOTE 7) HARNESS. TO MAKE THE SPLICE, CUT THE WIRE AND USE A BUTT SPLICE--PLEASE DON'T USE A SCOTCH LOCK TERMINAL.
9. AFTER MAKING THE SPLICES, RE-TAPE THE HARNESS AND REPLACE IT IN THE WIRE WAY.
10. TERMINATE ALL WIRES GOING TO THE PC BOARD PLUGS w/T-72844. ••P-4568 WILL NOT WORK!!

SSIGN IGNITION CONNECTIONS